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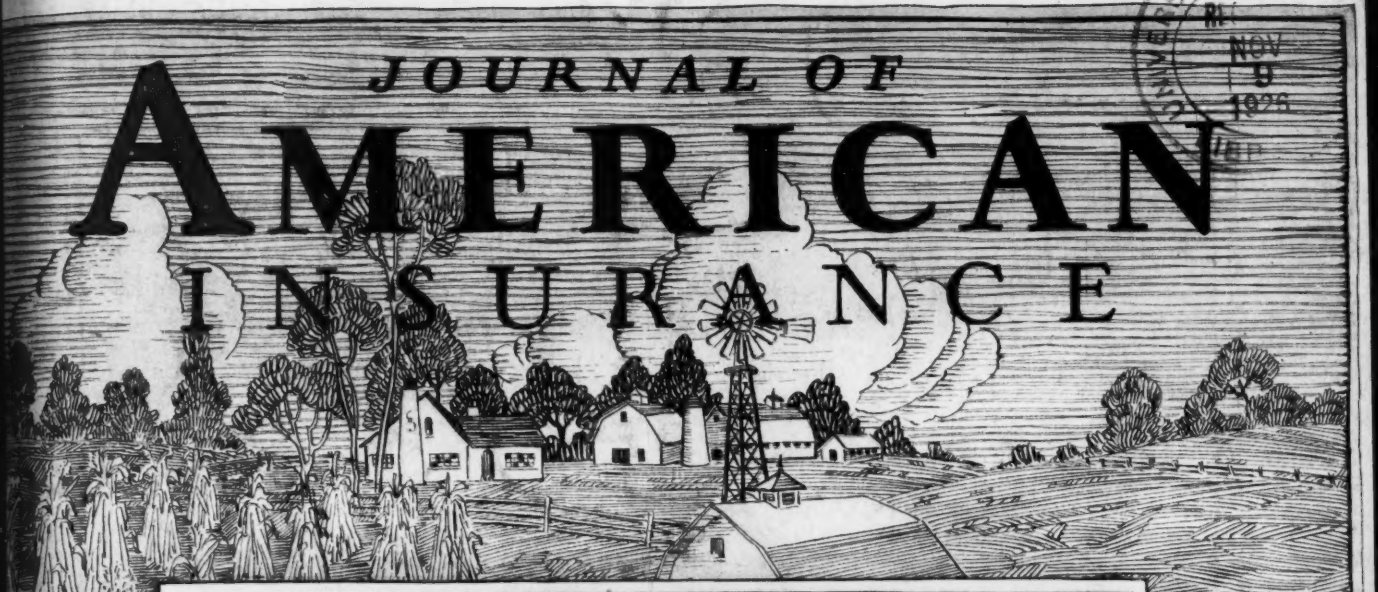

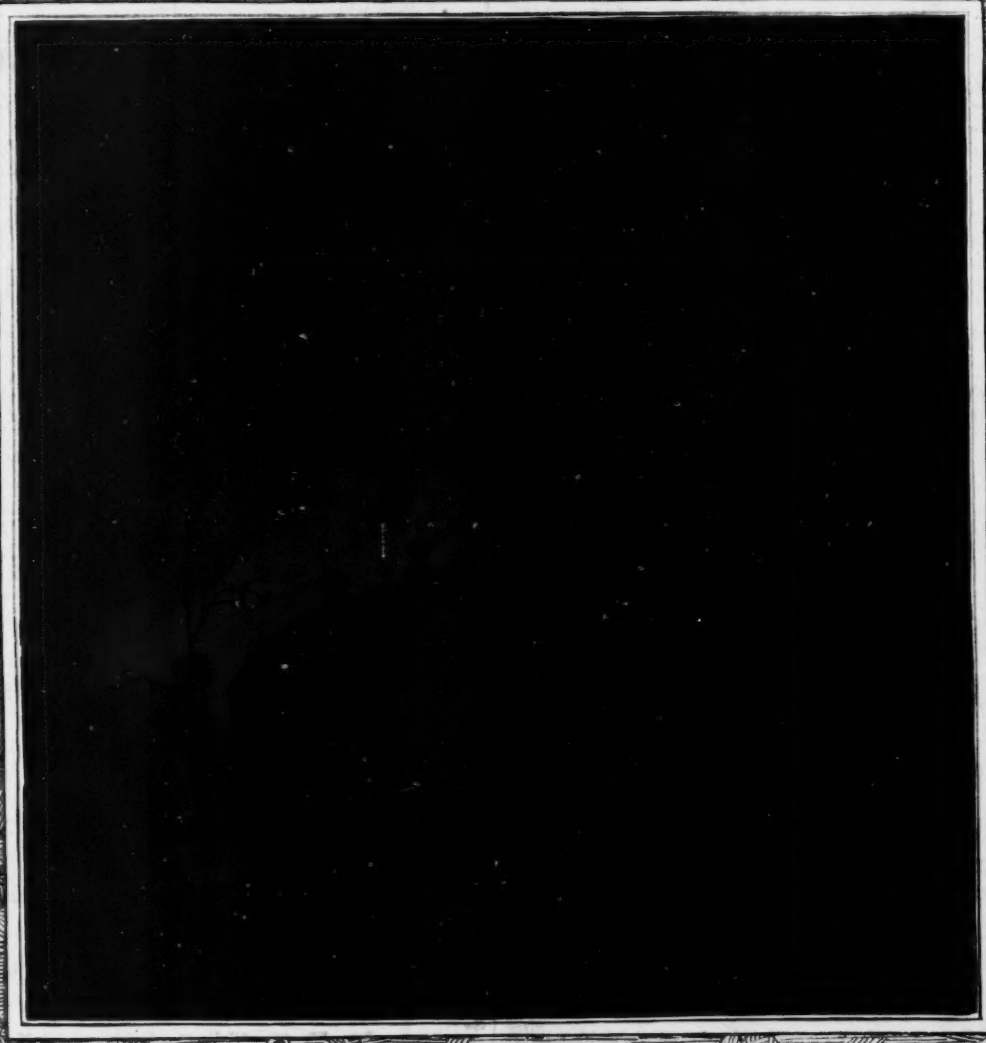

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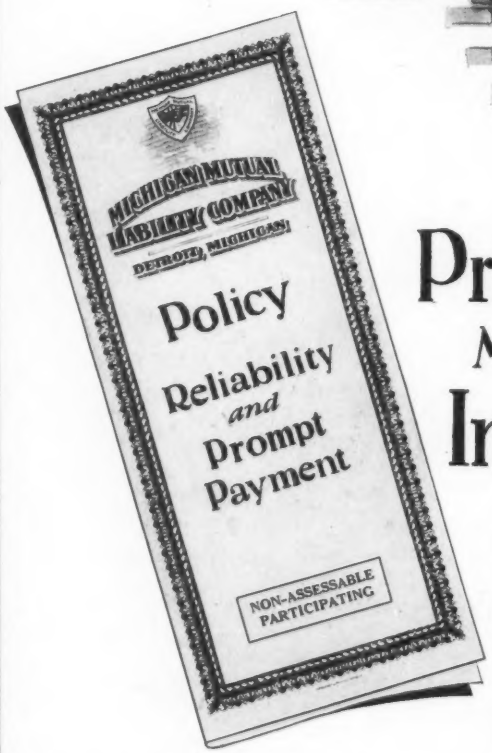

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CONTENTS

OCTOBER, 1926

FRONTISPIECE 4

LIVING LANGUAGE FOR LETTERS.
By Charles Henry Mackintosh 5

MUTUALISATION OF BRITISH STOCK COMPANY.
By Richard Morris 7

BIG ATTENDANCE AT LOUISVILLE 9

SUCCESSFUL SESSION AT BRIARCLIFF 10

TORNADOES IN THE UNITED STATES.
By V. N. Valgren 11

THE RAINFALL HAZARD.
By Col. John P. Finley 13

ORGANIZATIONS OF ACCOUNTANTS.
By F. H. Schwarz 15

EDITORIAL 16

LIFELIGHTS AGAINST A BUSINESS BACKGROUND.
By S. J. Duncan-Clark 17

CONQUERING DEATH-DEALING DISEASES.
By J. Paul Atwood 18

BITS OF WIT 31

HAROLD P. JANISCH - - - - - - - - Editor and Bus. Mgr.
S. J. DUNCAN-CLARK - - - - - - - - - Contributing Editor

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E. J. BROOKHART

OF all the successful men in the field of Mutual Insurance, none has had a more useful and satisfying career than the genial and efficient E. J. Brookhart. Born in a log house on a farm in Mercer County, Ohio, he has advanced by hard conscientious effort to a conspicuous place among the Insurance leaders of America. His exceptional executive ability is reflected in the long list of official positions which he holds.

He organized and is Secretary of the National Mutual Insurance Company; organized and is Secretary of the Celina Mutual Casualty Company; organized and is Treasurer of The Mercer Casualty Company; one of organizers and first President of the National Association of Automotive Mutual Insurance Companies; President of The Mutual Savings and Loan Association and Director of Citizens Banking Company, both of Celina; member U. S. Chamber of Commerce, National Association of Mutual Insurance Companies and Federation of Mutual Fire Insurance Companies.

Moreover he stands high in Church, educational and Masonic circles and among his multitude of friends is known as a royal good fellow.

Living Language For Letters

Letters Are No Longer Little Legal Forms. They Are Simply Substitutes For Flesh-and-Blood Contacts. They Are Mailed Messengers and Should Deliver Their Messages in Terms of TODAY

Being the SECOND of a SERIES of SIX Articles Written Especially for The Journal of American Insurance

By CHARLES HENRY MACKINTOSH

AT the very moment when your eyes first fell upon these words, a MILLION business-letters may have fallen down mail-chutes, and into mail boxes. To such an extent has the art of letter-writing advanced in the past half-dozen decades, replacing the old order in which letters were written at an average rate of about one a day per individual of the population!

Drop back with me just a little deeper into the Dark Ages and we shall find letter-writing to be a still less popular pastime, for the good and sufficient reason that not ten men in five thousand knew how to write. When the business-man of those days had a letter to be written, he was obliged by his own illiteracy to call upon the services of a public letter-writer, or scribe, who would listen to the merchant's message and then proceed to pen it upon parchment in his own words and style. For this service he might receive a flat fee, but more probably he was paid by the page like the hack news-writers of today who have developed a deadly faculty for diluting a five-line thought with a column and a half of superfluous words.

SO with those old scribes, the more *pages* the more *pay;* and it isn't hard to imagine why their letters were heavily loaded with ceremonious salutations, vain repetitions, and participial endings. Why say in five words what could be said almost as well in fifty, when the fee fattened with every wasteful word?

The high-cost of letter-writing, to say nothing of hand-made pens and parchment and the hire of mounted messengers, made it a real luxury to be indulged in only upon occasions of genuine importance. Most of the letters of those days dealt with offers and acceptances, matters which were, by their very nature, most likely to come into the civil courts as evidence in suits for breach of contract and the like.

The Public Letter Writer Was Once a Man of Consequence

Let us imagine the *first* wordy letter offering or accepting the transfer of some piece of property in a veritable deluge of description and repetition, coming into court in such a case and *winning* the case. At once a formidable precedent has been established to prove the scribe's contention that all such letters should follow much the same form, covering every possible point of controversy with as many words as possible. Again the high-cost and serious character of letter-writing received support and the number of letters written was probably reduced accordingly. All that were written, however, employed much the same semi-legal language. Indeed, business letters in those days were simply little legal documents having a salutation and a complimentary conclusion.

THERE is a force in nature known as *inertia,* the tendency of which is to keep still objects at rest and to continue moving objects in the same direction and at the same speed of their original impulse. This force applies not only to physical objects, but also to the minds of men. It is the reason why we wear buttons on our coat-sleeves, originally placed there to permit of the decorous folding back of long sleeves designed to protect costly lace ruffles except when it was desirable to display them. Ruffles and extension sleeves both have gone, but the buttons remain as a memorial to *inertia.* It is the reason why municipal charters issued to street-car companies still require such companies to keep in constant repair the pavement between the rails, although it is quite obvious that the requirement relates to the daily damage

done by the sharp-shod hoofs of the original street-car motors! It is the reason, also, why the modern American business-man, leaping from his motor at the door of his skyscraping office, ascending in a hydraulic elevator, entering his modern office and talking through the telephone, then turns to his stenographer and dictates a letter in terms of a dead and distant past, terms which he could not toss from the tip of his tongue in ordinary conversation without being considered funny or foolish!

Imagine a Mutual Insurance man stepping into the presence of a prospect and reciting the sort of gibberish which makes up most of the average business letters even today:—"Beg to acknowledge with thanks receipt of your valued favor of October 18th, inquiring about our plan of Mutual Fire Insurance, and in reply to same will say:" etc., concluding with the inevitable participial ending:—"Trusting that this answers your inquiry satisfactorily, and assuring you of our readiness to serve you to the best of our ability at all times, beg to remain:" Would he remain, or would his remains remain? It is a fair question.

Mail Boxes Gobble Up Fortunes in Postage and Stationery

Millions of Uninteresting Letters Go Into Waste Baskets Daily

NOW the author of this article is not one of those who support the suggestion that we should write as we would talk, because most of us talk too much and too loosely. It is the special privilege of the letter-writer that he may take time to arrange his words and to condense his thoughts, but apparently letter-writers do not believe in special privileges. The main reason for the automatic opening paragraph of the "Beg to acknowledge" type is, without doubt, the habit men have of beginning to talk before they know what they are going to say. It is a method of warming up the mind motor, and the hope is that after a few wasted words the thoughts will commence to come with real clarity and power. Of courses that can't happen in the case of a letter commenced with a frozen formality, because the opening paragraph sets the *tone* of the letter, and it would be obviously unseemly to leap suddenly from the language of 1726 to that of 1926. So the letter continues and concludes in terms of a medieval bill of rights.

The importance of the opening paragraph of a letter consists not only in the fact that it sets the *tone* of the letter, but also in that it makes the *first* impression upon a fresh mind. If it mumbles meaningless formalities, the receiving mind promptly falls to the same plane, and the rest of the letter will be read as if it were a summons to serve on a jury rather than a wanted word from a friendly human-being. If, on the other hand, it announces its message in some such crisp and modern manner as:—*"Your letter of the eighteenth is likely to lead not only to reduced fire risks in your factory, but it may put back into your own pocket thirty cents of every dollar you pay out for insurance from now on,"* it makes the reader sit up straight and *think!*

Average Letters Are Tame Stereotyped Affairs

THE final purpose of all letters is to make people *think;* and, in that sense *all* letters are sales-letters. *Thoughts* may be sold as well as *things;* indeed, things must be sold by turning them into thoughts, and so it is more true to say that *all* salesmanship consists in the selling of thoughts, and that every written or spoken word expressed for the purpose of moving the minds of others is salesmanship. Regarding every letter as a sales-letter, we may bring to bear upon the construction of such letters precisely the same principles which were discussed and demonstrated in the first article of this series, "HOW TO MAKE THEM THINK," which appeared in the September issue. If you have that issue handy, it may well be worth-while to turn to the article when you finish this one and read or re-read it with the thought that it applies to letters no less than to lip-language.

The same four steps must be taken in moving minds by means of a letter from the starting-point of mild curiosity to the goal of dynamic ACTION: First, the reader must be made to *want* to read the letter rather than to do so as a disagreeable but necessary duty. This is the function of the first paragraph, and you will probably concede that the example suggested above would surely tend in that direction. Second, he must be made to want to *understand,* not only the meaning of the words, of course, but also the meaning to and for himself of the letter

(*Continued on Page* 23)

Mutualisation of British Stock Company

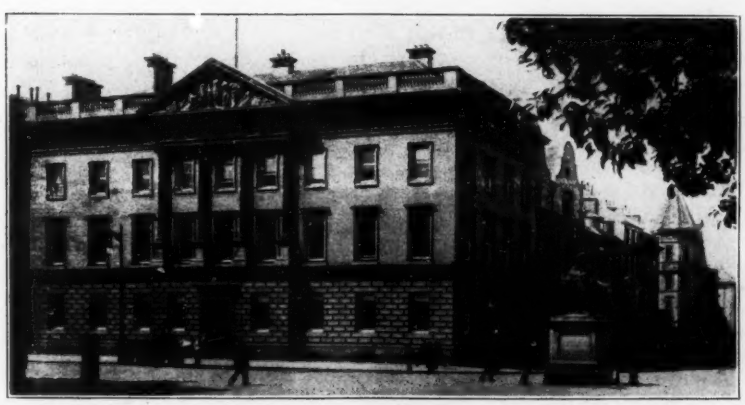
Story of Scotch Insurance Concern Which Celebrated Its Hundredth Anniversary by Turning Over Over Business to Policy Holders

By RICHARD MORRIS, F. S. S.
Former Member of Parliament

AN American Insurance Editor has courteously sent me a copy of his paper the perusal of which has amazed me. He appears to have a code of ethics peculiarly his own, out of keeping with American sentiment and hostile to the best insurance practice the world over. He condemns any insurance operation that is not intended for profit, ignoring the basic fact that Insurance—unlike any other business—is a process of mutual co-operation between the policyholders for their common good, for the preservation of the fruits of their labour, for making the operations of ordinary business possible, creating an association for the elimination of the financial ill-effects of misfortune which cannot be known beforehand. It is the one scheme of civilization not intended for profit.

The main purport of this article, inspired by the foregoing, is to relate how a British Stock Insurance Company recently celebrated its hundredth birthday. Its hundredth birthday, think of it, having survived the storm and the tempest. The story provides an indication that some of the most sagacious intellects in this country are fully alive to the need of the hour, to the trend of events, gaining for themselves a fuller realisation of the real meaning of Insurance. After a successful career of a hundred years, on the top of the wave of its prosperity, making handsome and growing profits for its shareholders, it decided to put an end to its proprietary or stock element and to open its second century as a mutual company, thereby, unknowingly, disqualifying itself on account of its "socialistic manifestations" from the privilege of advertising its operations in the columns of the American Insurance paper to which I have referred. Partisanship, when it passes the line of true sanity develops into a disease and becomes a manifestation of an early dissolution.

Field Marshall Earl Haig



Head office of the Standard Life Insurance Company, Edinburgh

THE Insurance Company of Scotland, now known as the Standard Life, was established in Edinburgh in 1825 with an issued capital of £500,000 in shares of £50 each on which a call of £1 per share was made, providing a sum of £10,000 as working capital, and to this day that was all the cash ever paid by shareholders into the coffers of the company. It would appear from the prospectus issued at the time by these Edinburgh pioneers that they were not actuated mainly by profit-making motives because they refer with pride to the success of the Scottish Widows founded in Glasgow ten years before "on the principle of Mutual Assurance, having no Proprietary, has after ten years standing amply rewarded the labours of its Founders". The annual income of the Scottish Widows in 1825 had grown to £17,500. These benevolent and indomitable men of Glasgow, in the early days, used to open their Board Meetings with prayer, just as their resolute forefathers used to attend their prayer-meetings with rifles. That was their high conception of the nature of their undertaking.

The controlling motive of the Edinburgh men appeared to be the fact that "twenty English companies had agencies in Scotland, and by the whole together, premiums to a very great amount are annually remitted to England". The process has since been reversed. To make success doubly certain they endeavoured to combine the proprietary element with the mutual principle. This object was to be attained by limiting the remuneration of the shareholders to five per cent on the capital and one-tenth of the profits of the Company, nine-tenths going to the policyholders. This arrangement held good for a hun-

dred years though the £10,000 cash invested in the company had in the meantime, by some means or other grown into £175,000. But even in Life Assurance there had long been Stock Companies in which the shareholders took the whole of the profits.

IN due course these companies realised that if they were to compete with the mutual offices they must give the policyholders some proportion of the profits. Then there were the old competing claims of the two types of companies, one emphasising its share capital as additional security and the other the more favourable terms upon which they could grant assurance. To-day, however, it is recognized that when a company is well established, share capital is not only superfluous but a burden and a peril. One authority states that if an insurance company is not strong enough when its own resources and reserves are taken into account, share capital can not make it a company in which it is advisable to effect assurance. This is especially the case in Life Insurance but the principle is of general application. In course of time the proportion of the profits assigned to shareholders becomes a mere expense to the policyholders with no compensating advantages.

The Manager of the Insurance Company of Scotland was to have a salary of £75 per annum and the Secretary £50 per annum in addition to what they received from the Fire Section. These were miserably small salaries though, of course, the purchasing value of money in those days was much higher than it is at the present time. Insurance workers, inside and out, from the office boy to the general manager should be adequately paid. The work is all-important. It is not a catch-dollar scheme. It is a trust demanding full devotion and fidelity. The first directors, or partners as they were called, had no very clear idea of the durability of the institution they were creating. The prospectus stated that "the company, if not sooner dissolved, shall endure for forty-five years and thereafter from year to year without at present contemplating a period of dissolution". Contemplating a period of dissolution is now out of the question. As a mutual company it has a future existence to which no limit can be assigned.

"To-day it is recognized that when a company is well established, share capital is not only superfluous but a burden and a peril. One authority states that if an insurance company is not strong enough when its own resources and reserves are taken into account, share capital can not make it a company in which it is advisable to effect assurance. This is especially the case in Life Insurance but the principle is of general application. In course of time the proportion of the profits assigned to shareholders becomes a mere expense to the policyholders with no compensating advantages."

BY 1925 the funds of the Company had reached the sum of £15,000,000 and its annual income to about a million sterling. In life Insurance especially, as every actuary knows, serious differences might easily arise as to the methods of ascertaining the divisible profits from year to year. The interests of shareholders and policyholders are hardly ever absolutely identical and very often they are in sharp conflict. The present directors of the Standard consist of some of the leading business men in Scotland. The Chairman is prominently connected with some important financial trusts. He is a Doctor of Laws of St. Andrew's University. During the Great War he raised a Third Line Battalion of the 7th Black Watch. One of the directors is Field-Marshal Earl Haig, who is well known to a large section of the American public. The other directors are lawyers, business men and professional accountants. Why did they mutualise? It is the first case on record on this side, though the practice is familiar to the American public. Why did the Insurance Leviathans of America dispose of their shareholders and re-establish on a mutual basis? Both on your side and on this side these men of big business and large vision were all actuated by very much the same motives. To keep their Institutions clean, to strengthen the claims of Insurance on the public, to shake off the fetters of conflicting interests so as to be free to serve and free to grow. No business man in Chicago, Glasgow or elsewhere can truly assert that insurance service and insurance growth can best be promoted by the incessant jostling of the two interests in Stock Insurance. If the Great Movement is to take complete possession of its heritage it is imperative that the possibility of any conflict between the interests of shareholders and policyholders shall utterly disappear. I think it will when our civilisation has progressed another stage and in some respects you seem to be ahead of us. In America your perception is invariably from a more direct and vital angle, unhampered by tradition and convention. The privilege and the responsbility I believe will be yours to shape the finished model. But I must get along.

IN a few words, the Standard Mutual Scheme is to give the shareholders a fixed annual dividend on a definite amount of stock and apart from this dividend to wipe out their control and their claim to a proportion of the profits. The scheme can best be explained by the terms of the letter circularised by the directors announcing their intention to mutualise, which was as follows:-

"Proposed Mutualisation of the Company.

"For some time past the Directors have felt that it would be in the interests of all concerned that the Company should be mutualised, and that the management and control of the Com-

(*Continued on Page* 22)

Big Attendance at Louisville

Southern City Is Ideal Host to Mutual Delegates Who Convened In Mid-October

LOUISVILLE, spirit of the generous and hospitable South, host par excellence and faultless exponent of the manners of the famed Kentucky gentlemen—Louisville, smiling and with hands extended in welcome, took the members of the National Association and the Federation to its heart during the recent convention and gave of its best to make a splendid five days of entertainment still more pleasurable with a continued and perfect courtesy.

Mutual insurance always, it seems, has the good fortune to gather into its fold men of vigorous, interesting and gracious personalities, and nowhere could this have been more evident in this Southern metropolis.

If ever a full program of events was provided for the enjoyment and education of a convention gathering, it was arranged in de luxe fashion at Louisville. Not a detail of comfort or convenience was overlooked from the moment of arrival to the last goodbyes as the various trains pulled out.

SUCH praise may appear extravagant in cold print, but to those who experienced the delights of Louisville's hospitality, there can be no exaggeration. The convention and its attendant festivities was a perfect mosaic of pleasure and business, with the Mutual motif always standing out in sharp relief.

Those on the General Entertainment Committee were William Mehler, Henry Deibel, C. Wm. Stockhoff and James B. Ratterman under the vigorous leadership of the seemingly omnipresent Wm. A. Wetter.

Meriting special mention was the happy manner in which the ladies of Louisville rose to the opportunity of entertaining their sisters of the mutual world from states both near and far. Flowers greeted the visitors in their rooms on arrival, tea followed tea and musicale followed musicale from day to day, and as may be expected the ladies were the chief objects of interest at the dances, theatre party, the banquet, and other events which filled in every available minute before, between, and after the convention sessions.

At the head of the Women's Committee was the gracious Mrs. Wm. Selke, and assisting were: Mrs. John Tobe, Mrs. John B. Ratterman, Mrs. T. A. Thomas, Mrs. D. F. Stewart, Mrs. L. Heer, Mrs. B. F. Reed, Mrs. Ed. Diebold, Mrs. William Barth, Mrs. William Wetter, Mrs. C. A. Blatz, Mrs. E. J. Manteuffel, Mrs. G. A. Brinkhaus, Mrs. Leroy Miles, Miss Loretto Herrmann, Miss Louise Nill, Miss Catherine Nill, Miss

EN ROUTE TO MAMMOTH CAVE

MUTUAL DELEGATES AND LADIES IN COSTUME READY FOR UNDERGROUND EXPLORATION.

Lorene Thieman, Miss Regina Evers, Miss Marie Heer, Miss Ann Amelia Barth, Miss Dorothy May Barth, Miss Anna M. Brinkhaus, Secretary, all of whom worked early and late to make sure that every fair visitor was happy. Each item of entertainment ran with smooth but exact precision. The entire event had an air of social eclat, quite unusual and always brightened with the smile of cordiality.

SIDE trips to Bardstown, where Old Kentucky Home was written, to Mammoth Cave, and about the interesting city of Louisville rounded out a perfect visit.

Although he made no speeches, there was one delegate who attracted a prodigeous amount of attention. This personality was Col. Bogey, who entertained with unprecedented success at the Cherokee Golf Links. When the party was over it was found that the honors had lined up thus:

Low Gross—Grain Dealers Natl. Cup, won by G. A. McKinney

Runner Up—Pair Matched Clubs—Won by C. M. Purmont.

Low Net—Houston Dunn Cup —Won by J. M. Cook.

Runner Up—Golf Bag—Won by C. A. L. Purmort.

Match Against Par-Cup—Won by Henry Opgenorth.

Odd Holes—1 Dozen Golf Balls —Won by F. E. Walt.

Even Holes—1 Dozen Golf Balls —Won by Barbee Betts.

Fewest Putts—Leather Coat—Won by Eugene Arms.

1st Blind Bogey—Cigarette Set —Won by R. S. Danforth.

2nd Blind Bogey—Wallet—Won by Glen Walker.

3rd Blind Bogey—Cigarette Case—Won by H. B. Carson.

Consolation Prize—Cigar Humidor—Won by Geo. MaDan.

Of lesser attendance but of equal enthusiasm was the Horseshoe Tournament which engaged the attention of an ardent group of devotees. Those who topped the list at the end of the day were:

First prize—Silver pheasants —won by E. C. Mercer.

On all sides were heard comments on the excellent record made by the retiring President. O. E. Hurst who, by his unstinted expenditure of time and energy has added much the prestige of the Association and to his own reputation during his term. Congratulations in similar vein may also be offered to Vice President C. I. Buxton and Treasurer F. B. Fowler, to the Board and especially to Mr. Harry P. Cooper, the Secretary, known everywhere that Mutual Insurance is known and a tower of strength to the organization which he serves so well.

THE future of the Association is also fully guaranteed by the selection of Mr. Buxton as President with Henry R. Gibbel Vice President and Mr. Fowler, again, Treasurer. W. E. Straub was chosen National Councellor, and H. J. Rowe, Thomas G. McCracken, W. M. Deisher and C. L. Frost were elected to the Board of Directors.

In the Federation, F. J. Martin and Burton S. Flagg were elected to succeed themselves on the Board. Other Board members elected were A. W. Campbell and Justin Peters in place of P. J. Jacobs and Fred Wessels, Jr., whose terms expired.

Successful Session at Briarcliff

Automotive Association and Casualty Association Have Interesting Meeting Near New York City

JOLLY good fellows mingling pleasure with their serious discussion of Mutual affairs gave to the Convention at Briarcliff a spirit of co-operation and comradeship which will be rich in memories.

The beauty of the setting at the famous New York lodge was an inspiration not alone to the golfers and other lovers of outdoor sports, but the Fall tang in the air gave vigor and pep to the deliberation of the meetings as well.

AS to the latter, much on the program was of a technical nature scarcely susceptible to analysis in any brief manner, but the ideas and suggestions and information contained in the many papers were of sound merit and destinctly helpful to the delegates attending.

Automotive Association Officers

President, P. J. Jacobs; 1st Vice-President, C. E. Hodges, Jr.; 2nd Vice-President, C.A.L. Purmurot; Treasurer, W. H. G. Kegg; Secretary, J. M. Eaton.

Governors

P. J. Jacobs; James S. Kemper; S. B. Black; W. H. G. Kegg; J. W. Bond; A. Shirley Ladd; E. J. Brookhart; P. W. A. Fitzsimmons; C. E. Hodges, Jr.

Commissioners to American Mutual Alliance

P. J. Jacobs; James S. Kemper; C. E. Hodges, Jr.

Casualty Association Officers

President, H. R. Mitchell; 1st Vice-President, J. A. Gunn; 2nd Vice-President, S. B. Black; 3rd Vice-President, J. W. Bond; Treasurer, J. S. Kemper; Secretary, J. M. Eaton.

Governors

H. R. Mitchell; J. L. Train; G. L. Mallery; C. E. Hodges, Jr.; H. J. Hagge; S. B. Black; P. W. A. Fitzsimmons; James S. Kemper; George E. Hardy.

Commissioners to American Mutual Alliance

H.R. Mitchell; P. W. A. Fitzsimmons; S. B. Black.

Further details of the Convention will be considered later, but it should be added here that the battle on the links was fought with as much enthusiasm as any competition for a million dollars worth of business. The winners were:

The Kemper cup for low gross was won by John L. Train for the second time.

E. J. Brookhart was the winner of the second low gross trophy a silver sandwich dish.

John Cronin was the winner of low net, trophy a fruit bowl.

S. Bruce Black, as runner up, received a silver compote.

C. E. Twitchell, took the third low net, trophy a silver bonbon dish.

J. Waldo Bond won match play against par receiving a silver vase.

C. A. L. Purmort winner of blind bogey prize, had as his trophy, a leather zipper bag for golf clothes.

John A. Buxton won the prize for most pars. This was donated by the hotel and consisted of room and board during Mr. Buxton's stay there.

Homer Mitchell won the special blind prize, a Spaulding sweater.

John Cronin, S. Bruce Black, John L. Train, C. A. L. Purmort split two dozen balls on the net twosome prizes.

Tornadoes in the United States

Surprising Facts About Wind Storms and the Havoc They Cause in Destruction of Lives and Property

By V. N. VALGREN

Agricultural Economist, United States Department of Agriculture

From an Address Delivered at the Louisville Convention

INSURANCE against destruction by wind is frequently referred to as tornado insurance, or cyclone insurance. These terms while suggestive are somewhat misleading since invariably the insurance covers not only against tornadoes or cyclones, but against all kinds of winds sufficiently severe to damage or destroy the property insured. Hence the term "windstorm insurance" is undoubtedly more appropriate.

However, nearly one-half of the property loss due to windstorm in the United States, according to studies by the United States Weather Bureau, is caused by tornadoes. It seems not inappropriate, therefore, at a meeting of windstorm insurance men to review chiefly some of the statistics available with respect to tornadoes in the United States.

IF a brief digression is permitted, it may be pointed out that the term "cyclone" is frequently confused with that of "tornado." Technically the word "cyclone" denotes a wide circular movement of the atmosphere. In the northern hemisphere these cyclones rotate counter-clockwise and cover areas from about a hundred to a thousand or more miles in diameter. The centers of the cyclonic areas, which on the weather maps are indicated as "lows," advance as a rule toward the east or northeast at an average rate of about 400 miles a day. Because of the large area covered by the cyclonic movement, the rotary motion is not apparent at any given point; the wind to the local observer appearing as a straight wind varying in intensity from a breeze to a gale.

The tornado, on the other hand, is a strictly local phenomenon, or at least local in the sense that it covers but a very small area at any given moment; the actual diameter varying from a few yards to a maximum of about a mile. A tornado has been defined by the United States Weather Bureau as "a violent storm in connection with which there is usually noted a well-defined pendant, funnel-shaped cloud, with attendant rotary winds, often of sufficient violence to prostrate buildings and uproot trees, and leaving unmistakable evidence of rotary winds." The path of a tornado is generally from west or southwest to east or northeast.

Map above gives figures showing value of Property destroyed by tornadoes in thirteen States where loss was heavy during period of eight years 1916 *to* 1923.

754 *tornadoes costing* 1875 *lives and a property loss of* $54,872,000

FREQUENTLY winds may develop in connection with thunder storms which acquire a velocity sufficiently high to be destructive, but in most parts of the country destruction of really substantial buildings is little to be feared except in the case of a tornado. On the Gulf Coast, however, there occasionally occurs a storm known as the hurricane, which is almost as destructive as the tornado. Because of the greater area covered and because on the coast these hurricanes may be accompanied by tidal waves, they may be even more destructive than tornadoes, although less severe at any given point.

Three special studies have been made of tornadoes in the United States, each covering a series of years. The earliest of these studies was made by Col. John P. Finley of the United States Signal Service, prior to the establishment of the Weather Bureau. His study covered a period of eight years, namely, 1874-1881. The second statistical study was made by Prof. A. J. Henry, still a member of the United States Weather Bureau, this study covering the period 1889-1897. A third study was begun by the United States Weather Bureau in 1916 and has been continued to date. The results of this latest study to the end of 1923, as well as summaries of the earlier ones, are given in the Monthly Weather Review for May, 1925 in an article prepared by Herbert C. Hunter.

According to the statistical information made available by these three studies, the actual number

of tornadoes reported for twenty-five years was 1,684, making an average for the United States of 67 tornadoes a year. If we count the tornadoes by states, however, the number during the twenty-five year period amounts to 1,768, since there were eighty-four instances of tornadoes crossing one or more state boundaries.

APART of the infomartion obtained from the above-mentioned studies has been indicated on this map (referring to map) which shows for each state: (a) the total number of tornadoes in the twenty-five years covered by special studies; (b) the average number of tornadoes per year; (c) the average annual number of tornadoes per unit area of 10,000 square miles.

The reason for calculating the number of tornadoes per unit area of 10,000 square miles for each state will readily appear to you. It is obviously unfair to a large state to cite merely the number of tornadoes that has occurred within its borders and compare such number with the number that has occurred during the same period in a smaller state.

By calculating for each state the number which has actually occurred annually per unit area of 10,000 square miles, we obtain figures for the various states which are comparable and which indicate the actual relative frequency of tornadoes in the various parts of the country.

Based on the actual number of tornadoes that have been reported for each state in the 25 years, the state of Kansas with a total number of 177 and an average per year of 7.1 would seem to be the worst tornado state in the Union by a considerable margin, with Texas, Iowa, Missouri, Arkansas, Illinois, Nebraska, Mississippi, and Oklahoma following in the order named. Texas and Iowa as indicated on the map had a total of 126 and 124 tornadoes respectively, or an average per year of about five in each case. Missouri had a total of 114 or an average per year of 4.6. Arkansas had a total of 107, or an average per year of 4.3. Illinois had a total of 104, or an average per year of 4.2. Nebraska had a total of 72, or an average per year of 2.9. Mississippi and Oklahoma had totals of 71 and 69 respectively, or an annual average of about 2.8.

Property Loss During Eight Years, 1916-1923 for Fourteen Leading States was as follows:

Illinois	$7,536,000
Indiana	5,016,000
Minnesota	4,767,000
Iowa	4,446,000
Alabama	3,797,000
Mississippi	3,698,000
Kansas	3,662,000
Missouri	3,507,000
Texas	3,439,000
Ohio	3,187,000
Michigan	3,082,000
Oklahoma	2,632,000
Georgia	1,500,000

WHEN we calculate the frequency of tornadoes per unit area of 10,000 square miles, however, Kansas loses much of its prominence as a tornado state. In fact, the state of Iowa then ranks first with an annual average of .91. Kansas second with an annual average of .88, Arkansas third with an annual average of .83, Illinois fourth with an annual average of .76, New Jersey fifth with an annual average of .75, and Missouri sixth with an annual average of .71. In other words, we find that the frequency of tornadoes in these states which are generally thought of as the peculiar home of tornadoes, is not so greatly in excess of the frequency in a considerable number of other states. Thus the annual tornado frequency in Indiana, namely .62, and of Mississippi, namely, .60 is nearly three-fourths that of Iowa and Kansas, while the tornado frequency of Ohio, namely, .52 and that of Alabama, namely, .47 is roughly 5/9 of that of Iowa and Kansas.

A further study of these figures based on a unit-area distribution indicates that Massachusetts with an average of .50 and Maryland with an average of .45 both surpass Nebraska with its annual average of .38 Pennsylvania with its annual average of .37 and Michigan with its annual aver- of .32 are only slightly below Nebraska. New York with its annual average of .28 exceeds in tornado frequency Wisconsin and the two Dakotas, and very nearly equals that of Minnesota with its annual frequency of .29. The probability of a tornado in any given spot in New Hampshire with its annual average of .22 is according to these figures only slightly less than in Wisconsin and Minnesota. Alabama with an annual frequency of .47, Tennessee with an annual frequency of .43, and South Carolina with an annual frequency of .41, all surpass both Oklahoma and Nebraska; while Georgia with an annual frequency of .31 falls between Minnesota and Michigan.

WITH the exception of Rhode Island and Delaware, tornadoes have occured in every state in the Union during the period covered by the studies here cited. Generally speaking, the lowest frequency is found in the Pacific Coast and Rocky Mountain states. The fact that no tornadoes occurred during these 25 years in Rhode Island and Delaware may be ascribed to accident, since tor-

(*Continued on Page* 28)

The Rainfall Hazard

Fundamental Factors Related to This Weather Risk and Their Practical Application to Underwriting

By COLONEL JOHN P. FINLEY

Consulting Meteorologist and Manager, National Storm Insurance Bureau, New York City.

ARTICLE No. II.—RAINFALL SPREAD

WE have defined the Rainfall Hazard and indicated its nature as one of the forms of atmospheric precipitation. The relation of precipitation to aqueous vapor, or water vapor, and the conditions under which conversion takes place, from the gaseous to the liquid state and vice versa have been explained. In Article No. 1 we touched briefly upon the relation of cyclonic and anticyclonic circulation to the occurrence and distribution of precipitation. Much more will be said on this item in the present article. It is a prominently vital element in the mechanism of Rainfall Spread.

The next step in unfolding to the reader the insurance angle of the Rainfall Hazard requires a closer study of the formation, extent and progressive movement of the Rainfall Area, with respect to its parent the cyclonic (LOW) area. The counterpart of the latter is the anticyclonic (HIGH) area, and the HIGH surrounds the LOW on all sides and exhibits a more powerful circulation at a greater altitude than exists with the LOW.

The gyratory circulation, contra-clockwise in the LOW, is generally from the ground upward, augmented by the southerly warm and moist component of tropical air, and carried to the dew-point and cloud-levels where the aggregation of water-vapor condenses into drops of sufficient weight to descend to the earth as rain. Investigation as to the size and weight of rain drops show that the measured diameter does not exceed 7.2 millimeters and the major weight is not in excess of 0.2 grams. In mechanics the gram is the force needed to add 980 centimeters to the velocity of one

NATIONAL STORM INSURANCE BUREAU
NEW YORK CITY, NEW YORK.

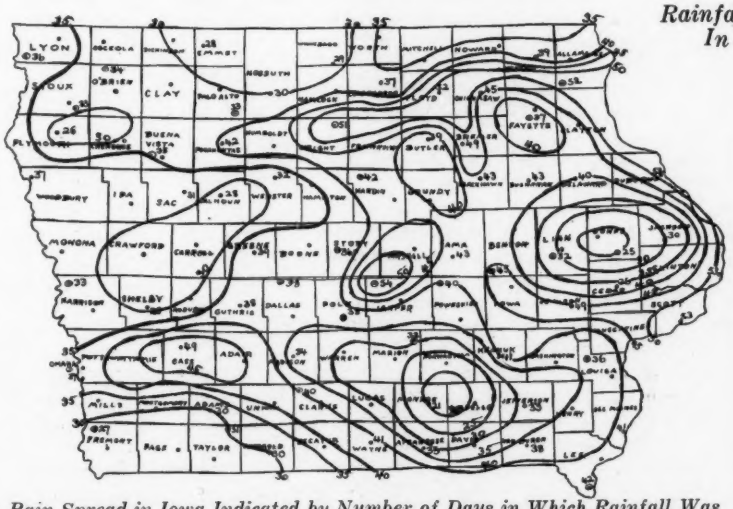
Heights and Velocities of Clouds in the Region Where Precipitation Forms Preparatory to Descent Upon the Earth.

Months	Cloud Forms. Heights (Maxima) in Meters. Ci.	Ci.S.	Ci.Cu.	A.S.	A.Cu.	S.Cu.	N.-Cu.	Cu.-N.	Cloud Forms. Heights (Minima) in Meters. Ci.	Ci.S.	Ci.Cu.	A.S.	A.Cu.	S.Cu.	N.	Cu.	Cu.-N.
January	10939	5334	9074	____	5146	2270	____	2693	January	6664	6808	3067	____	2217	1689	____	1187	____
February	11580	12450	10660	2958	7539	4412	____	1686	February	6291	8976	4954	2958	1524	1375	____	921	____
March	14327	11653	9312	3085	6746	3253	____	3767	5895	March	5430	8782	3866	1935	2782	1419	____	1085	2618
April	16009	12850	10640	4168	6489	4451	1312	3819	4173	April	5638	6846	4250	3659	2212	1520	1086	1110	1492
May	14082	13060	12196	8096	9422	4217	3684	3910	9375	May	5872	5638	5482	2086	2476	1855	1036	676	2283
June	15360	16144	13867	13158	9629	7285	1203	3246	8827	June	5354	6089	5339	1613	2419	1755	704	562	1743
July	15583	15624	15411	13434	10167	4349	4022	3613	15903	July	5627	9656	5757	4646	2951	1818	634	545	1249
August	15268	13526	11269	15552	6405	4157	2480	5242	5910	August	7689	5796	6624	2602	2494	1688	1713	909	3239
September	17182	12222	9419	8627	6262	5148	3395	2474	12419	September	6537	7465	7951	2841	2673	1759	3395	1193	2448
October	13442	11354	12425	7419	4107	4110	1050	3279	____	October	7515	6433	3878	2624	2407	1832	1050	912	____
November	15810	13983	12202	9195	7371	4266	2495	2852	3439	November	7550	8865	5798	4088	2528	1406	1536	1071	2986
December	12076	13674	12902	8086	7428	4402	699	2420	____	December	6631	5142	5759	2921	2504	1478	699	772	____

	VELOCITY In Meters per Second									VELOCITY In Meters per Second								
January	78.9	51.8	49.0	____	____	15.8	____	18.7	____	January	2.6	4.5	2.1	____	____	3.1	____	15.7	____
February	67.6	38.9	74.4	____	53.9	32.8	____	14.6	____	February	1.6	4.9	3.6	____	4.0	5.7	____	6.4	____
March	83.7	55.3	50.0	21.6	27.7	25.3	____	21.0	35.5	March	7.7	22.3	14.8	21.6	13.0	6.2	____	4.7	9.8
April	65.9	33.8	64.9	30.5	29.9	23.5	5.9	17.5	15.7	April	9.8	11.7	12.7	21.2	6.4	2.6	5.9	2.7	12.8
May	69.3	50.2	29.9	25.4	35.9	31.6	____	40.3	25.7	May	1.0	12.6	8.1	6.4	1.7	1.8	10.8	1.6	5.4
June	60.9	49.9	45.0	47.5	40.3	26.0	9.3	16.9	25.3	June	5.6	12.4	11.0	2.7	2.8	3.3	4.5	1.2	2.9
July	49.6	24.8	44.2	40.2	31.1	19.3	11.5	21.6	37.5	July	5.9	1.5	6.1	7.5	5.5	3.6	11.5	0.5	2.5
August	57.4	37.0	57.8	30.0	25.0	18.0	8.6	8.8	11.5	August	1.1	5.1	6.5	4.4	1.2	2.4	8.1	0.4	1.5
September	42.2	55.6	33.7	15.0	40.4	11.3	____	9.7	27.1	September	7.1	12.2	8.0	6.0	2.9	6.2	____	3.0	8.0
October	59.7	37.8	48.9	23.3	26.6	15.0	____	19.2	____	October	1.5	18.0	9.4	11.7	1.6	5.5	____	3.0	____
November	57.0	36.7	50.9	40.9	28.5	20.3	12.7	16.4	9.4	November	11.2	15.2	16.7	16.5	4.6	9.2	10.4	4.5	3.5
December	80.2	91.9	90.0	28.1	43.5	22.4	____	19.2	____	December	5.8	13.8	19.2	21.9	2.4	4.8	____	10.2	____

The cloud abbreviations at the head of each column are given in full as follows:-
Ci.- Cirrus.Ci.S.-Cirro-Stratus.Ci.Cu.- Cirro-Cumulus.A.S.- Alto-Stratus.A.Cu.- Alto-Cumulus.S.Cu.-Strato- Cumulus.
N.-Nimbus(Thunder-head) Cu.-Cumulus.Cu.N.-Cumulo-Nimbus.
Cloud observations made by theodolites and nephoscopes at selected stations, covering the United States, from the Atlantic to the Pacific, and from the Gulf to the Great Lakes. Observations continued for one year, June 1st, 1896 to July 1st, 1897 under the direction of the U.S. Weather Bureau, and elaborately analyzed.

Rainfall Spread In Iowa



Rain Spread in Iowa Indicated by Number of Days in Which Rainfall Was 0.01 inch and Over, in October, for Five-Year Period, 1915-1919, Inclusive, Distributed by Counties at 62 Rainfall Reporting Stations

gram of matter, in one second of time. A gram centimeter is the work done in overcoming a gram of force in a distance of one centimeter. The gram is the weight of a cubic centimeter of pure water, whose temperature is just a little above the freezing point, the point of greatest density and the only point, when that weight of the water can be put into that space.

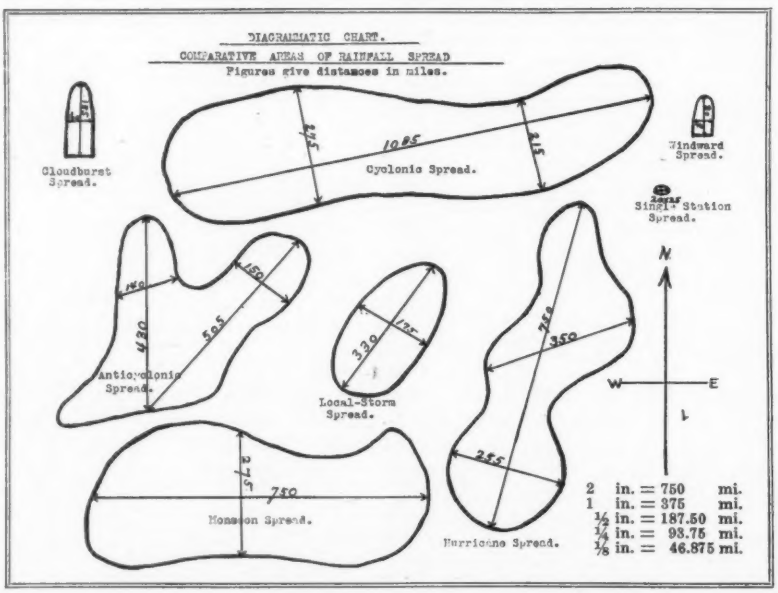
EXPERIMENTS show that, in the falling of large drops of rain, they are continually splitting into smaller ones before reaching the earth, and also changing in form. Without the gyratory upward movement of the air in the central area of a LOW there would be no precipitation and per-contra drought would ensue. Warm, moist air is pushed upward in the maelstrom of circulation because it is lighter and the line of least resistance is upward. The air issuing from the upper limits of the LOW, having been deprived of most of its heat and moisture, joins in the rather irregular and general eastward trend or drift of the atmosphere, at that altitude, of about 2500 meters.

The opposing gyratory circulation of the HIGH is generally downward and clockwise, moving thence from a higher altitude, being drier, colder, heavier and moving somewhat more rapidly. These HIGHS and LOWS are depicted on the daily map of the U. S. Weather Bureau, based on the 8 A. M. and 8 P. M. seventy-fifth meridian observations, synchronous as to time, and therefore presenting, what may be called a photographic weather reproduction of standard meteorological observations. Thus we have the outlines of the mechanics of the atmosphere that give rise to precipitation in the form of rain in warm weather, and of snow or sleet in cold weather; of local storm development (Tornadoes, Hailstorms, Thundersqualls, Cloudbursts, Whirlwinds, Waterspouts and Floods) when the temperature and humidity gradients propagate such vortical movements in the southeast and southwest quadrants of the LOW.

Each disturbance has its own characteristic Rainfall Spread which can be charted for study and comparison. In addition to natural displacement of the air, between the earth and the cloud-levels, due to the effect of solar radiation and the revolution of the earth, from west to east, carrying the atmosphere with it, there is the orography of a region, as exemplified in mountain ranges, that have the effect of directing the air upward, in the circulation of the LOW, so that the rising air deposits its moisture in rain on the windward side of the range, and flows over the crest as comparatively dry air. Thus the interposition of the Sierra Nevada range against the westerly currents from the Pacific gives rise to the conditions of The Great American Desert on the lofty plateaus between the Sierra Nevadas and the Rocky Mountain ranges.

The Rainfall Spread which we are especially discussing may be divided into classes, according to the nature of the atmospheric disturance exhibiting its particular Precipitation Spread, as follows: (a) The Cloudburst Spread. (b) The Windward Spread. (c) The Cyclonic Spread. (d) The Anticyclonic Spread. (e) The Hurricane Spread. (f) The Tornado Spread. (g) The Hailstorm Spread. (h) The Thundersquall Spread. (i) The Waterspout Spread. (j) The Sleetstorm Spread. (k) The Whirlwind Spread. (l) The Single Station Spread. (m) The High Intensity Rainfall Spread. (n) The Cloudless Rainfall Spread.

THE diagrammatic chart accompanying this article shows graphically the outlines of some of the above named Spreads in which the major and minor axes of the areas have been measured in miles and entered on the diagrams. In the case of the Monsoon Spread we have the influence of the seasonal deflection of wind currents, deviating from normal direction, generally between water and land areas when the latter are either warmer or colder than the former. Monsoon circulation is more marked over the continental areas of Asia, Australia, British India, parts of South America and the interior of Africa than in any portion of North America. Over the eastern part of the United States the prevailing northwest winds of winter become the warm southwest winds of summer, under the influence of Bermuda HIGHS, driving the air westward from the Atlantic over the Gulf Stream, shifting to south-



(*Continued on Page 24*)

Organizations of Accountants

Value of Co-operation in the Study of Methods and Gathering of Statistics and Other Information

THOSE of us who are students of business and whose association with Mutual Companies has covered a period of years are conscious of the excellent progress that has been made in the field of Mutual Insurance.

The premium incomes of our Mutual Companies are consistently increasing. Many of them are entering other states. Some of them are writing additional classes, and a general program of expansion is apparent everywhere. We are happy in the consciousness that the narrow and self-sufficient ideas so evident in the Mutual Insurance field some years ago have forever faded into obscurity, and in their stead we recognize a more harmonious coordination, a stronger and more unified front. Years ago when the business of Mutual Companies was somewhat limited, the accounting branch of the business was looked upon as a necessary evil, tolerated because of the law of necessity, and in a very few and isolated cases it still retains its primitive aspect. Simultaneously with the increasing volume of business and the consequent increase in the problems of accounting came the appreciation of the true value of the accountant's services. Consistent with such recognition and progress came the increase in his responsibilities and the addition of the multitudinous details which are familiar to most of us. Common to such progress we are constantly confronted with innumerable problems; some of these are entirely new to everyone of us, while others are new to a few of us. Nevertheless, they are of interest to all of us. Our underwriters are conscientiously striving for uniformity in the various branches of underwriting that will permit and sometimes demand such cooperation.

By F. H. SCHWARZ
Assistant Treasurer and Auditor, Merrimack Mutual Fire Insurance Company

THE meetings of the American Federation of Mutual Fire Insurance Companies and its sub-committee meetings, to say nothing of the meetings of the American Mutual Alliance and other kindred organizations, have had a very beneficial and wholesome effect upon the business relations of our representatives, and through them find expression to the rest of us.

Heretofore, the accounting problems of a few of our companies have been placed before such organizations, although it was known that most of the representatives who attended such meetings were men who for the most part devoted very little, if any, time to the accounting department of the business, and were, therefore, not truly representative accountants. The reason for such reference is obvious since it was the only possibility of placing our problems before a body of men who were the representatives of the Mutual interests.

THE accountants of our Mutual Companies should not lean upon the underwriting representatives to solve their problems. This plea is made first in behalf of the underwriters who have heretofore conscientiously tried to understand and help accountants to solve their problems, but whose limited knowledge of accounting matters in many instances is a distinct handicap. Secondly, let us make a plea for the progressive accountant who has studied his problems and whose constant association with this specialized branch of the business should and does qualify him to understand and explain his problems so that we may more clearly comprehend his difficulties. If we agree that the accountant should be the best qualified man to understand the accounting problems of his company, and if he needs, as we know he often does need, the counsel and opinions of others as a means of comparison and a broader insight into his problems, then why should he be deprived of the privilege of discussing such matters with a representative group of Mutual Insurance accountants? Up to this time he has been deprived of that valued privilege only because, like his contemporaries, he did not fully appreciate the possibilities of an organization which is entirely devoted to the accounting and financial aspect of the business.

The year 1926 will undoubtedly go down in history as a year in which a national program of economy found fertile soil to fall upon. Every insurance magazine and every newspaper has dwelt upon it. We should all realize that the great redeeming feature of a Mutual Company is a low expense ratio, and the recommendations of our accountants should be a conspicuous factor in the reduction of expenses. There are many expenses which cannot be handled by any individual office, but must be treated by the companies as a whole if a reformation in that particular direction is to be obtained. We must not overlook the possibilities in that direction and, although some recommendations may seem insignificant insofar as any one company is concerned, yet collectively they produce figures that will justify their adoption.

THE purpose of an Association of Mutual Insurance Accountants should be clearly defined as being a recommendatory organization seeking the best in its respective field, urging and recommending uniform practices. The "Association of Mutual Insurance Accountants" is answering a long-felt need for an impartial, unified body where combined effort is directed toward the accounting problems of Mutual Insurance. This organization was originally local in character, but due to the

(*Continued on Page* 30)

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Our Mutual Interests

COMMUNITY of interest in the protection of person and property has been from the beginning of civilization one of the strongest factors operating to promote a better social order. Biological laws underlying the perpetuation of the race require the cooperation of two persons, one of each of the differentiated sexes, to accomplish their purpose. Parenthood is the fundamental community of interest, and having discharged its function of begetting life it enlarges the scope of its responsibility to provide for and protect the life begotten.

Thus community of interest becomes a motive operating through the family and uniting it in the effort to promote through mutual service the welfare of all its members.

BY putting one and one together the strength of each unit in the combination is increased, and two is seen to be not merely stronger than one, but stronger than two ones acting independently. Similarly ten are stronger than two and one hundred than ten. The security of each unit in the hundred is greater than of each unit in the ten, and the possible effectiveness of each is greater where a recognition of community of interest has resulted in a wise and sincere cooperation.

So there came to be groups of families forming tribes, and groups of tribes forming nations. Impelling this development was the impulse to achieve a greater security, both in the matter of protection against enemies and provision against natural perils, such as famine. Thus the idea of mutuality is deeply rooted in the very essence of our being, biologically and sociologically.

AS we have pointed out frequently in these columns this republic was founded upon the sense of community interest and mutual obligation. It is written into all its charter documents. The Constitution of the United States is in fact a contract clearly expressing it and in so many words defining the ends which were to be sought by union.

THE American republic was, in part, a revolt against a perversion of this idea. It was a return to the original conception of community of interest, and again the community and its individual members became the primary objects of the strength exercised through mutual undertaking.

Ben Franklin launched the mutual insurance idea in America, consciously or unconsciously, carrying into it the same revolt against the perversion of the community interest motive which he and his colleagues had expressed in the new nation.

The strength of all is the strength of one, and that one is the humblest citizen of the Republic—such was the original ideal, evolved in ages of struggle by the race, and now restored in the greatest governmental enterprise ever undertaken by mankind—our own United States.

MUTUAL insurance holds to that original ideal. It is a return to first principles. And not least of its values is the fact that it serves as no other non-political agency in the United States to emphasize in many ways our mutual interests and obligations. The monthly contents of this Journal is an evidence of that fact. We think it may be claimed with proper modesty that there is no publication in America primarily devoted to insurance which offers to its readers so wide a field of interest in its printed articles as the JOURNAL OF AMERICAN INSURANCE—emphasis on American, please.

Take, for example, J. Paul Atwood's article in this issue on the work of the Rockefeller Foundation. Its interest is sufficient to justify it in any serious magazine, but it is doubly justified here, because of our appeal to a reading public believing in the mutual principle and understanding its theory.

OUR mutual interests include all efforts which contribute to reducing the perils to person and property found in our modern civilization. To the extent that these are curbed and diminished the mutual problem of security is simplified and the cost of its solution lessened. Whatever helps to reduce the hazards of disease, of accident, of fire, of lawlessness, is of direct dollar concern to every holder of a mutual policy. Cooperation with all effective agencies engaged in such work is the reasonable and natural impulse of mutual insurance.

Life Lights on a Business Background

Business and Politics

By S. J. DUNCAN-CLARK

MY friend Gibson is in the automobile accessory business. He is an energetic and diligent worker. He began in a small way and has built up a flourishing concern. But it keeps him with his nose to the grindstone — a creditable nose, as it happens, and, apparently, durable, since it shows little indications of wear.

Familiar with the exigencies of his private interests I was surprised the other day, when I walked into his office, to find him with the newspaper spread out on his desk and his mind manifestly intent upon some article in its columns. Had it been open to the financial page, or the page devoted to the industry in which he makes his livelihood, I would have understood his interest; but glancing over his shoulder, with the privilege of an old acquaintance, I noticed that he was immersed in a special correspondent's survey of the political situation in his state.

"WELL, of all things!" I exclaimed. "I never expected to find you reading politics in the middle of a business morning. Not thinking of running for office, are you?"

He pulled himself out of the article, which was manifestly absorbing his interest, and greeted me with a smile.

"No," he replied, "it is not so bad as that—yet. I have no political ambitions. But I am just awakening to the fact that here is a situation I ought to know something about—and I know nothing about it."

"Why? Your business isn't in politics, is it? There is nothing the politicians can do to you that will hurt, is there? Or do you see a chance for some contracts of a profitable nature if the right crowd wins?"

"YOU ask too many questions at once," he countered. "To your last question I answer that contracts have nothing to do with it. So far as that goes it makes no difference to me which crowd wins. Any business I get I want on merit. If I cannot give service which will command patronage, I will seek it on no other basis. But to your other questions I answer 'Yes'. My business is in politics. The politicians can hurt it. But it is in politics only as all other business is, and it can be injured only as any business may be injured by inefficiency, extravagance and corruption in the handling of public affairs. Selfishly these are good reasons why I should be interested in politics. Look at what I paid in taxes this year. Do you suppose I am getting value for that? I know I'm not. If half of what the newspapers say be true I am paying a big percentage of my taxes to meet the costs of misgovernment. If there were any such leak in my business as there seems to be in the administration of the common business of the people I would have to get actively interested at once or face bankruptcy.

"But that is not the real occasion of what seems to you a sudden and unusual attention to politics. The President said some things the other day that set me thinking. He spoke of the danger to the country which lay in the indifference of many of its people to political matters, and indifference shown by the falling off in the proportion of actual voters to eligible voters. Of course I have known that a lot of us who call ourselves good citizens are just going along and taking what is given us in the way of government without making any worth while effort to get better. I have heard quite a few speeches which touched on that subject; but somehow when the man in the White House spoke about it my conscience twinged a bit.

"THERE have been a good many occasions when I thought myself too busy to vote, and let it slide with the excuse that one vote wouldn't make any difference, and, anyway, I didn't really know who were the fittest candidates, or just what merit attached to the issues over which they were fighting. It comes to me now that these are pretty poor excuses for any citizen to give, and particularly poor for a citizen who prides himself on being fairly intelligent.

"It is obvious that if many citizens of the same general sort as myself fall into the same negligence of duty for like insufficient reasons, the inevitable result is that the business of the country will be run by politicians who have enough direct and personal interest in politics to make it a business. And if we leave them to run it we must expect them to get their reward out of running it, in other words to pay themselves out of the revenues and opportunities which control of the people's affairs may afford them.

"That sort of management of the public's business is not likely to be advantageous to the public generally. It means that service of the public interest will be secondary to service of such private interests as are profitable to the politicians who make a vocation of politics. It means that our American institutions will cease to represent in any true sense American democracy, and will come to represent only those elements in the community that are politically conscious and active. As the President intimates the American ideal of government is threatened by this tendency.

"SO I have decided to reform. Henceforth I am going to vote in all primaries and elections no matter how busy I may be. I am going to count my citizen engagement to be present at the polls as taking precedence over all other engagements. But if I do that, I must do more. I must be informed. I must understand what is at stake. I must know something of the candidates. I am finding it quite a job, but I have no right to dodge it. I am inclined to think the politicians have made the job bigger than it needs to be in order to fasten themselves more securely upon us as necessary evils. That is something I want to look into.

"We need an awakening of citizenship conscience in America. If this is to continue a government of the people, by the people, for the people it is time the people attended to their business."

My friend Gibson leaned back in his chair.

"Am I right?" he asked.

"One hundred percent," I answered.

Conquering Death Dealing Diseases

Work of The Rockefeller Foundation and International Health Board In Stamping Out Yellow Fever, Hook Worm, Maleria and Other Widespread Scourges

By J. PAUL ATWOOD

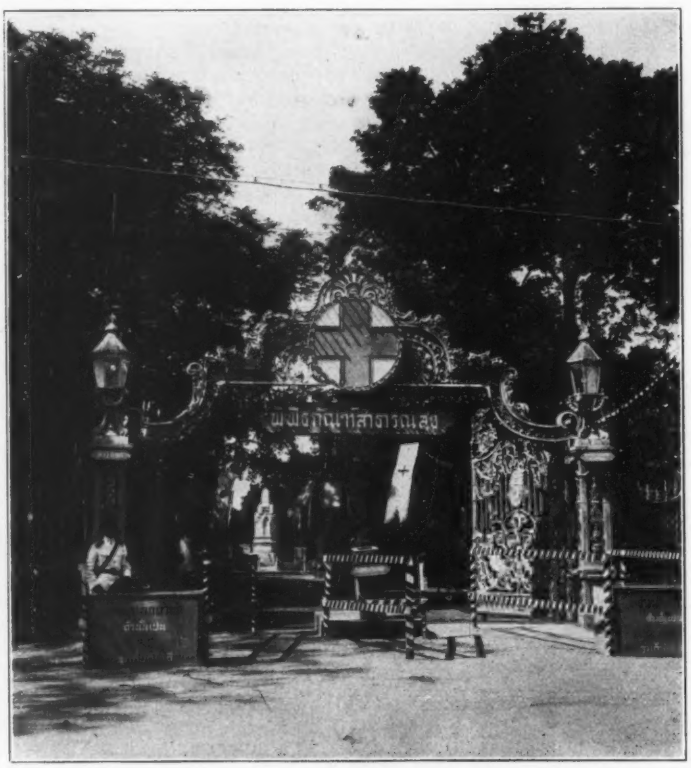
AS the biological sciences accumulate data upon health and disease, and as nature grows steadily more communicative, revealing the secrets of man's peculiar composition, a gap is apt to develop between pure and applied science.

At best, technical knowledge is disseminated only to the technician and, in the field of health, this usually means that the physician who is abreast of the laboratory is called upon only after the injury is done. The emphasis of the medical profession has been largely upon cure; preventive medicine is too often the mere stepchild of a preoccupied parent.

The work of the Rockefeller Foundation and of its subsidiary, the International Health Board, is significant not merely because of the marked success of many of its campaigns against disease, but because these campaigns demonstrate the development of a technique whereby abstruse laboratory knowledge is taken to the field and put to work in infected areas.

It is difficult for many of us, living in urban communities and large metropolitan centers, to sense the nature of the problem. The mere congestion of our city life has developed so acute a need for sanitary measures that they have been enforced as a matter of course. In thinly populated districts and less advanced communities the cost of health measures is usually prohibitive and the technique of their application unknown to blundering and incompetent authorities.

THE combative energy of the Foundation has been primarily directed against hookworm, malaria and yellow fever. The battle has been continual and persistent, and has called into play all of the varied resources of medical science. Staffs of experts have been sent to infected areas, field stations have been erected and financed, backward communities have been educated in the elements of sanitation, and laboratory workers have improved the technique of diagnosis and treatment.



Entrance to Red Cross Station in Foreign Setting

In the face of campaigns conducted with so much vigor and backed with adequate scientific and financial assistance, hookworm, malaria and yellow fever have been constantly retreating. During 1925 only three cases of yellow fever were reported from all the Americas. These occurred in Northern Brazil. It is not quite certain that all three were authentic. To one who knows something of the history of yellow fever this record is striking. What a contrast to the early days when from certain endemic centers in Mexico, Central America, the Caribbean Islands, Ecuador, Venezuela and Brazil, the dread disease used to spread terror and death far and wide! It invaded the ports of the United States from New Orleans to New England. It took toll of the California pioneers as they crossed the Isthmus of Panama. It even made its way to the Mediterranean, carried by sick men and ship-bred mosquitoes.

The opening of this century saw the beginning of an attack before which yellow fever has been steadily giving ground. Of late it has been in rapid retreat. In 1900 a United States Commission headed by Walter Reed discovered in Havana the method of transmission. Then Gorgas quickly brought the fever under control in all of Cuba. His methods were soon successfully applied in Vera Cruz in Mexico and in Rio de Janeiro and Santos in Brazil. Everywhere quarantine measures became more effective. Later, in the Panama Canal Zone, Gorgas repeated his Cuban triumphs. A sense of security began to pervade regions which had once lived under the shadow of fear.

There is perhaps no more romantic and thrilling story in all of modern history than the record of these initial skirmishes against yellow fever. Mark Sullivan in

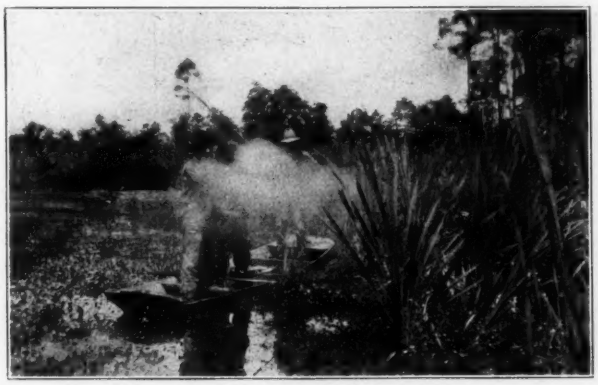
his recently published first volume of "Our Times" recounts it in all its dramatic vividness and it is a tale which puts fiction to shame and rings with the glory of man's valiant and heroic battle with nature. It represents a modern Prometheus unbound.

BUT the fever had been scorched, not killed. It lurked in old endemic centers, and now and then broke forth in epidemic form. As the opening of the Panama Canal approached, the sanitarians of the Far East became alarmed. New trade routes might carry the disease to the Philippines, China, India. At this time came the suggestion that Gorgas would welcome another and perhaps a final bout with an old foe, and under his direction the Rockefeller Foundation and the International Health Board followed up the initial work and painstakingly reduced the peril from this dread disease.

In 1906, Gorgas made a preliminary survey and outlined a plan of attack, but it was not until 1918 that work began in earnest. The essential feature of the strategy was the cleaning up of endemic centers through the team-work of governments under central leadership. The plan was carried out step by step. Noguchi isolated the fever germs and thus provided means of diagnosis and possibly of immunity. Guayaquil in Ecuador, for a century and a half a known seed-bed of yellow fever, was rid of the disease; an epidemic in Northern Peru was controlled; Mexico carried out a successful campaign; Central America was gradually set free and finally Brazil undertook large-scale operations which are proving effective.

Gorgas had included in his plan a commission to the West Coast of Africa to study reported epidemics of yellow fever. He was on his way to Africa when he fell ill and died in London in 1920.

Strong evidence has been adduced to show that yellow fever is an African disease and not, as it used to be believed, a malady indigenous to the New World. It was carried, chiefly in slave ships, from the West Coast of Africa to America.



Combatting Mosquitoes With Paris Green

Authorities differ about the prevalence of yellow fever on the West Coast. A few have even denied that it is to be found there. The relative immunity of the native peoples, their tendency to hide their sick, the presence of one or two maladies which have symptoms very like those of yellow fever, the scarcity of doctors who have had first-hand experience with well-authenticated cases, the character of the records, have made it difficult, without laboratory tests, to confirm clinical diagnoses. The commissioners sent under Gorgas found no case of yellow fever, but they reported a belief that the disease was present and recommended further investigation.

With the gradual disappearance of yellow fever from the Americas, West Africa becomes the last stronghold of this stubborn enemy. The fortress is formidable enough. An area as large as the United States east of the Mississippi, a tropical climate, the prevalence of many diseases, few and for the most part difficult means of travel, a population of thirty million natives— superstitious, secretive, and suspicious —present a challenge that turns sanitary and health work into a high adventure.

Less spectacular, but with equal effectiveness, have the campaigns against the hookworm and malaria been conducted, and this trio of disease is losing its foothold upon the human race.

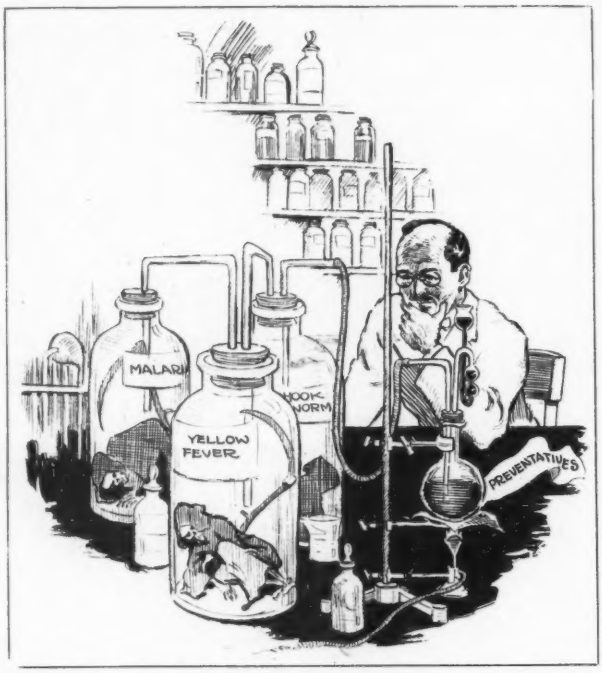
Victories Are First Won in the Laboratories

THE Rockefeller Foundation was incorporated May 14, 1923, under a special charter granted by the State of New York and with an initial endowment of $100,000,000, the gift of John D. Rockefeller, Sr. Administration was entrusted to an original board of nine members, who were given the power to add to their number and to choose their successors. A few weeks later the Rockefeller Sanitary Commission, which had since 1910 been combating hookworm disease in the Southern States, was reorganized as the International Health Board and became a departmental agency of the Rockefeller Foundation. In 1914 a similar subsidiary, the China Medical Board was created to administer a program of medical education in the new Oriental republic. The rapidly developing work of the Foundation in aiding medical schools in many countries led the trustees in 1919 to set up a Division of Medical Education. Through these agencies the Foundation has cooperated during its first decade, chiefly in public health projects and the improvement of medical education, with governments and institutions in sixty countries.

During the first year or two, while the trustees were considering questions of policy, gifts were made to a variety of institutions and projects, for example: The Palisades Interstate Park, A Wild

Life Refuge in Louisiana, The American Academy in Rome, an investigation of industrial relations, and to various other objects which no longer fall within the scope of the Foundation's work. By the terms of the gift, the founder of the Foundation retained the right during his lifetime to direct the distribution of $2,000,000 of the income annually. This resulted in numerous appropriations to a wide range of charitable and religious societies up to July 19, 1917, when Mr. Rockefeller waived his right of designation and left the unrestricted control of the entire principal and income in the hands of the trustees.

From the outset, the example of the Rockefeller Institute for Medical Research, the success of the International Health Board in applying scientific knowledge, and the interest of the Foundation in aiding Western medicine in China suggested policies which have been consistently developed. Public health work in cooperation with governments called for a supply of specially trained men and women. The dependence of sound preparation for preventive medicine upon an efficient general medical education became increasingly clear. Thus the Foundation has come to concentrate its attention and resources upon the closely related fields of public health and medical education. Even in these large spheres it has concentrated its activities along a few well-chosen lines.



Some of the Most Troublesome Diseases Have Been Effectively Bottled Up By Science

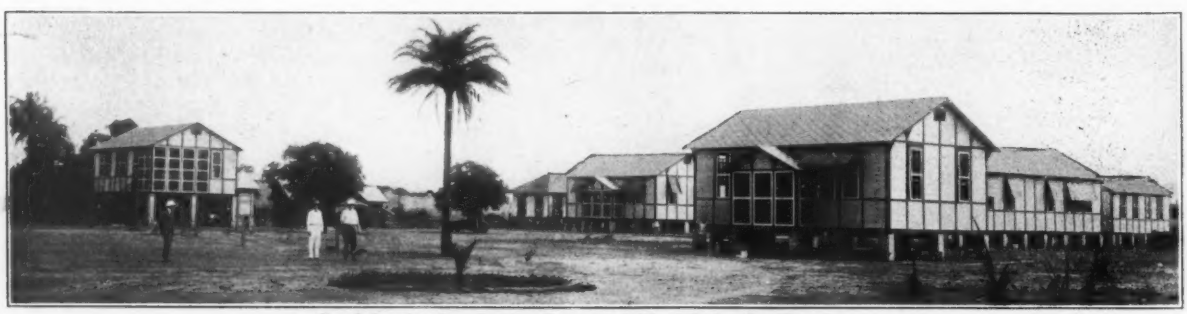
THE original work of the International Health Board was with hookworm, and a large portion of its effort is at present still spent in an endeavor to eliminate that disease. The relief of a disabling malady prevalent throughout areas inhabited by nine hundred million people of the world is sufficiently important in itself. But the control of hookworm infection has another and even more significant value. It is an effective means of educating people in the meaning of public health work and of persuading them to support more comprehensive measures for preventing other diseases as well. For the facts about hookworm disease are fairly simple and easy to understand. Even an illiterate person can, with the aid of charts, pictures, microscope and oral explanation follow the course of the tiny, burrowing larva as it makes its way from the soil where it has hatched from an egg, through the skin of a man into the blood which carries the parasite into the lungs. From there it penetrates to the throat, is swallowed into the digestive tract, and at last burying its hooks in the walls of the intestine, clings to its host, impoverishing his blood and robbing him of vitality.

The eggs which the worms lay pass out to infect the soil and to start another life cycle. The method of administering a vermifuge by which the parasites may be eliminated is simple. The worms themselves may be put under the microscope to convince the skeptical. This device, to be sure, is not universally successful. In the remote regions of a foreign country, for example, a doubting observer refused to admit the actuality of the squirming organisms.

"At the cinema," he said, "I see lions and tigers, but they are not really there."

Not only the cure but the prevention of disease through sanitation can be made clear and convincing. Experience with anti-hookworm campaigns in many countries has convinced the International Health Board that the disease can readily be used as a means of educating the public in the possibilities of preventive medicine.

During 1925 in eighteen different countries, the Board had a part in official anti-hookworm measures which included the treatment of nearly one and a half million people and the erection or rebuilding of thousands of latrines.



Good Sanitation Is the Secret of Health in the Tropics

BUT much more was done to combat hookworm than this statement would imply, for in the Southern States, and elsewhere, general health organizations known as county units or rural health departments have included measures against this malady as a part of their work. From the outset, the aim was not primarily the relief from one handicap to health, but the education of communities in the meaning and possibilities of public hygiene. The use of hookworm disease as a means of promoting health work in general in tropical and semi-tropical countries is progressing steadily under the direction of the Board.

A country health organization usually includes a full-time health officer, a sanitary inspector, a public health nurse, and a clerk. The annual budget averages about $10,000. The Board joins for a time with the local and state authorities in providing the necessary funds. The Board's share rarely exceeds a quarter of the whole—the average percentage in 1925 being 12.8. It grows less each year until it ceases altogether.

Under this plan in 1925, aid was given to 220 counties in twenty-six states of the United States, to eight counties in the state of San Paulo and to five in the state of Minas Geraes in Brazil. The idea has spread to Europe, where cooperation was extended to the department of Herault in France, to the district of Hartberg in Austria, to a similar region in Czecho-slovakia, and to two others in Poland.

The hookworm campaign in Siam is developing gradually into a movement for rural health organization. During 1925 five field units continued to treat for infection with hookworms and other intestinal parasites and to bring about the installation and maintenance of latrines.

One of the unique additions to the equipment in Siam has been a health boat, which was put into commission during the year. It is 52 feet long and has its own motive power and an electric light plant. It is equipped with a dispensary, a cinema machine, and educational exhibits. It tows a house barge in which the staff live while the rivers and canals of Siam are being navigated. By means of this floating messenger of health a large population will be reached which is accessible solely by water. Evening lectures are given in temples on the river banks, treatments administered, and an impetus given to the enforcement of sanitary measures.

PARALLEL to its campaigns against yellow fever and hookworm disease, the International Health Board has waged war upon malaria. The three diseases go well together. They are apt to be found in the same countries and all are subject to control by vigorous sanitary measures.

The disease which an Italian called malaria in 1753 because he thought it came from "bad air" has a long and sinister history.

Inspection of the Parron or Cantarita Type of Water Container Is Difficult

It is believed that the ancient Egyptians knew it. Hippocrates clearly described it. The decline of Greece and Rome is attributed frequently to malarial fevers. In 1640 cinchona bark was introduced into Europe and Peru and was gradually employed as a specific remedy. Various medical men studied the disease and connected it with marshy areas. One suggested the possibility that the mosquito might be involved. In 1820 an alkaloid called quinine was obtained from cinchona bark. Knowledge about the malady grew until in 1880 Laveran, a French army surgeon, discovered the organism which causes malaria. Ross in 1897 demonstrated the transmission of the malaria organism by mosquitoes. Experiments in the control of mosquitoes by use of oil and larva-consuming fish were then carried on. By 1910 a technique had been developed for the prevention of malaria through drainage, screening and other methods of mosquito control, and through the use of quinine.

The technique was employed by many governments and by Gorgas in Panama, but practically all of these projects were directly supported by national governments. Many of them had to be carried through almost regardless of cost for the sake of industrial or military ends. The question as to whether a small city, a town, or a rural area could be protected against malaria at a cost which the local population could afford remained to be answered. It was to test the possibility of effective control at a low per capita expense that the International Health Board began in 1916, in cooperation with state and federal authorities, a series of demonstrations in small towns in Arkansas and Mississippi. The net result of these experiments was so encouraging that for the season of 1920 widespread demonstrations were begun under the joint auspices of the local governments, state health departments, the United States Public Health Service, and the International Health Board. All the demonstrations have afforded cumulative proof that under normal conditions an average community can practically rid itself of malaria at a per capita cost of from forty-five cents to one dollar per year.

New Kansas Code

THE Kansas insurance code commission has completed its work and has submitted the result of its efforts to Governor Ben S. Paulen. The commission was authorized by the legislature of 1925 and appointed by the governor. It was composed of William R. Baker, superintendent of insurance; H. E. Lindsley of Wichita; J. E. Thorne of Olathe; E. R. Sloan of Holton and Douglas Hudson of Fort Scott; Lindsley, Sloan and Hudson are members of the house of representatives and candidates for re-election. Thorne is a state senator. Lindsley is president of the Farmers & Bankers Life of Wichita. Thorne is interested in the mutual insurance companies, operated by the Grange. Sloan and Hudson are attorneys for insurance companies, Sloan for the Bank Savings Life of Topeka and Hudson for

(Continued on Next Page, Third Col.)

(*Continued from Page* 8)

pany should be vested in the Policyholders. The Directors, after consulting Counsel and two independent Actuaries, have accordingly resolved to recommend a Mutualisation Scheme.

"The Scheme provides that the Policyholders shall acquire the whole interest of the Shareholders by giving them in exchange for each £10 share (£3:10:0 paid) £17 of fully-paid 5 per cent stock. The proposed exchange is subject to the provisions:

(1) That adequate approval from the Shareholders be obtained; and

(2) That the consent of Parliament to the Scheme, as embodied in a Bill to be prepared by the Directors, be obtained.

Should these conditions be fulfilled, the Scheme will take effect as from 16th November, 1924.

"At the present time the holder of each £10 share receives a dividend of 10/s per share per annum free of tax. This is equivalent to 12/11 per share per annum subject to tax at 4s 6d in the £. Of this gross dividend 3s 6d represents interest at 5 percent on paid-up capital, and this interest is a first charge on the divisible profits of the Company; and 9s 5d represents one-tenth share of the balance of divisible profits. Under the proposed scheme the holder of each £10 share would receive upon his substituted holding of stock 17s per annum of interest subject to tax. The whole of this interest would be a first and cumulative charge on the divisible profits. The shareholders would be relieved of their liability in respect of uncalled capital of £6: 10s per share.

"The Stock would be irredeemable, but in the event of winding up it would be payable at par ranking immediately after the claims of the Policyholders.

"The Directors have decided to support the Scheme so far as it concerns their own holdings, and they strongly recommend the Shareholders to do so."

IN effect the shareholders receive an annual tribute of £42,500 for giving up their rights and allow the policyholders to control the company. Alas! a heavy tribute. but some of the shareholders thought it inadequate and for a time fought against the Scheme. The directors proceeding with an unfaltering step won the day. An Act of Parliament has now been passed "to reincorporate the company to provide for the control and management of the company as a mutual company". Clause 5 of the Act reads as follows:

As from the commencement of this Act the incorporation of the company as a company limited by shares shall be deemed to be annulled and all shares in the share capital of the company shall be deemed to be cancelled together with all claims and rights attaching thereto.

It is significant that outside the few protesting shareholders there was not a whisper of disapproval from any quarter. The general and financial press of the country were in complete agreement with the proposal to mutualise, one leading journal observing-

From the policyholders point of view a merit of the scheme is that the control of the office would in future be vested in themselves and that after the fixed dividend on the stock has been paid, the whole of the divisible profits would belong to them.

The Post Magazine, the leading insurance journal in this country wrote:

In view of the liability on the shares and the fact that future management of the company would be vested in the policyholders, the scheme is a good one for all concerned.

THE directors of the old Stock Company will continue to act in the same capacity for the mutual company. These ten Scotsmen, high in the life and counsel of the nation, were under no financial pressure to alter the constitution of their company. They were making satisfactory progress as a Stock Company but they had become permeated with the true and essential meaning of Insurance. Working side by side with the Scottish Widows (1815) The Scottish Amicable (1826) The Scottish Equitable (1831) and the Scottish Provident (1837), all mutual offices of superb merit, they had been breathing the atmosphere of mutual service, hindered and endangered by the corrupting element of stockholding. Shareholders are entitled to regard their companies as money-making machines. That is what they are to them, but it is gall and wormwood to the man or woman who is vindicating the Gospel of Insurance in the highways and byways.

Accompanying this article is a photograph of head offices of the company in George Street, Edinburgh, acquired in 1837 and occupied two years later after extensive alterations. The design chosen for the facade of the building was the parable of the Ten Virgins, of whom five were wise and five were foolish. What an appropriate illustration! The foolish virgins took their lamps but took no oil with them. The wise took oil in their vessels with their lamps. They that were ready went in with the bridegroom to the marriage: *and the door was shut.* "Watch, therefore, for ye know neither the day nor the hour wherein the Son of man cometh."

New Kansas Code

(*Continued from Page* 21)

the Western group of companies at Fort Scott.

Copies of the new code will be sent to the state officials and members of the senate this month as the senate is a hold-over body. The copies of the code will not be sent to the members of the house until late in November when it is determined who has been elected to that body. The commission plans to hold one more meeting, late in December, when it will determine whether it has any further suggestions than those in the code to present to the legislature.

In the letter sent to the governor announcing the completion of the work, of the commission, appears the following:

"Your committee appointed by the Governor for the purpose of clarifying, revising and codifying the laws of the state of Kansas with regard to the business of insurance, as provided by chapter 188 of the laws of 1925, begs leave to report that it has finished the work for which it was created and as a result submits for your consideration and the consideration of the 1927 Kansas State Legislature a proposed Insurance Code which is set out herewith.

"In compiling this code it has been the thought of the members of the commission that the existing law of this state, amplified as it is by over sixty years of judicial interpretation, should be disturbed as little as possible and then only in those instances where the methods and practices of present day insurance business have outgrown the law as it now exists. The commission has, however, felt that the interests of the public should be protected in three important phases; first, that the finan-

(*Continued on Page* 27)

FIELD REPRESENTATIVE
WANTED

By a Fire and Tornado Company with an excellent record, a man to solicit business, call on agents, and inspect risks. A good job if you can deliver the goods.

ADDRESS BX, JOURNAL OF AMERICAN INSURANCE
168 NORTH MICHIGAN AVENUE, CHICAGO, ILL.

Living Language for Letters

(*Continued from Page 6*)

as a whole. Careful condensation of considered thought may cover both of these steps in a single paragraph, as is done in the example given. There needs to be another paragraph, however, to make sure that he *shall* understand, now that he *wants* to do so; and in this second paragraph, we must tell him HOW Mutual Insurance makes possible the promises made in the first paragraph.

"Mutual Insurance is the only form of insurance which actually encourages CARE in fire prevention, and it's easy to see why men to whom lessened risks promptly bring lowered RATES do all they can to cut the cost of protection, isn't it?"

REMEMBER, this reader has *asked* about Mutual Insurance in his imaginary letter of inquiry, so it's not only safe but wise to give him what he wants as speedily as possible. Now we must proceed promptly to still any instinctive doubt about the *safety* of our sort of Insurance, because that must be wiped away before he will want to BELIEVE—the third step—that Mutual Insurance will be a good investment for himself.

"It's important to know that Mutual Insurance is not only the OLDEST form of insurance in the world, but that it is actually the SAFEST form in America. The ship-owners of ancient Rhodes formed the first mutual insurance company half a thousand years before the Christian era. Benjamin Franklin formed the first in our country, in the 'Philadelphia Contributionship,' which was simply a mutual fire-insurance company. The plan worked well at Rhodes, and it worked well in Philadelphia, but it is working even better today, as you may see for yourself in this extract from an official report made by Charles H. Nesbitt as Commissioner of Insurance at Washington, D. C." The actual quotation from Nesbitt had better be in a separate paragraph with wider margins so as to make it strike home harder at the same time that the change in form makes the letter look easier to read. You'll find the quotation in full on page 24, column 1, of the November, 1925, number of this journal.

Now we are ready to take the *fourth* step, which implies first that we must make the reader *want* to act, and secondly that we must make it *easy* for him to act. It isn't possible to write the actual language of this step, because it must be absolutely pertinent to the particular proposition, and must include direct evidence, or reference to enclosed evidence, to the reliability of the concern responsible for the letter. It might run something after this style:—*"This Company (better name it, as the Blank Mutual Insurance Company) has met every claim upon it promptly for the past forty years. Ninety per cent of its original members are still on the membership-roll. The rest have died or retired from business. PROMPT payment of claims is a part of our special service in which we take great pride, because we know what it means to a man to get his money in full and quickly after a disastrous fire. We are usually able to deliver a check within fifteen days of a claim, but you'll see from the attached sheet headed 'Let Our Members Tell You How Promptly We Pay Claims,' that we are often able to deliver the check in less than half of even that almost incredibly brief time!"*

MR. V. N. VALGREN

Agricultural Economist of the United States Department of Agriculture, Author of "Farmers' Mutual Fire Insurance in the United States," and Specialist in Insurance Investigation for the Department,

Will Be a Regular Contributor to the Journal of American Insurance for a Number of Months.

WELL, now he knows *what* we will do for him and he knows that we *do* what we say, but there must be a paragraph about the price before he can decide to ACT. That, also, is likely to depend upon particular conditions, and can't often be quoted in specific terms in a letter; but the fact of the average *saving* may readily be driven home, thus:

"Eighteen hundred thousand dollars—nearly TWO MILLIONS—have been returned to our members as their share in this Mutual enterprise in the forty years of our life:—and remember, this was money which represented an actual rebate on the regular old-line rates, EARNED by and SAVED for our members by the elimination of all profit and of every cost which did not contribute directly to increasing the SAFETY of their insurance! For the last five years, the annual rebate has amounted to thirty cents on every insurance-premium dollar, put back into the pockets of our members."

Now he is ready to be told how *he* can pocket thirty cents on each of *his* insurance-premium dollars, and so we may conclude:

"You'll be keenly interested in contrasting our rates and our policy—point by point if you wish—with any other in which yau may be interested; and when you've done that, you'll SEE FOR YOURSELF whether it's what you WANT. Now, our Mr. R. A. Jones is an authority on insurance matters. He has been able to point out ways in which hundreds and thousands of dollars could be saved in premiums, and you'll find it mighty interesting, and maybe mighty valuable, to talk such things over with him thoroughly when he comes to see you. He can call at 3 o'clock tomorrow (Wednesday) afternoon if that will be convenient for you; but if you'd prefer some other time or day, just have your secretary telephone Bryant 6841 (or drop us a line) and we'll arrange it accordingly."

We haven't attempted the impossible task of getting the application back by return mail, of course, but you're likely to concede that the sample letter, keyed to the conditions of the Company sending it out, will probably secure a prompt and interested audience for Mr. Jones when he calls tomorrow at 3 o'clock! And then it's up to Mr. Jones, who will have read the first article of this series, so there's no sense in repeating it here and now, is there?

So much for the modern salesmanlike way of writing an ordinary business letter in answer to an inquiry. The next article in this series will take up the problem of writing a *form* letter to get *good* inquiries. You'll find it in the November number.

Rainfall Hazard

(*Continued from Page* 14)

west winds in the Atlantic Coast States, guided by the barometric gradients to the north as the LOWS pass eastward to the Atlantic over the region of the Great Lakes. On the Pacific Coast the on-shore winds of summer have a strong off-shore component in winter due to the dominating HIGH that overlies the western plateau region. Monsoon rains are irregular and have great range in quantity, dependent upon the influence of passing cyclonic and anticyclonic areas.

In the above review of Rainfall Spread we have indicated a number of natural processes by which precipitation is produced locally and indirectly connected with cyclonic and anticyclonic circulation. I refer particularly to the influence of convection due to solar radiation; the mixing of air by the axial rotation of the earth; the mechanical deflection of the air by artificial barriers and mountain masses; and the coastal land breezes carrying moisture-laden air from warm oceanic currents over the colder land, giving rise to various forms of precipitation. These agencies are subject to influences that give rise to diurnal and annual variations in rainfall. dependent mostly upon local conditions. A considerable number of stations on continental coasts have their maximum rainfall in the early morning or late night hours, and their minimum in the afternoon. Another class has the minimum between 8 A. M. and noon; while still another group has the maximum in the early portion of the afternoon. The most common case is that in which the minimum rainfall occurs during those hours of the day when the temperature is rising most rapidly, generally from 8 A. M. to noon, followed as a matter of course, by heavy rains at a later hour in the afternoon. These rules are liable to be completely reversed by the change of the seasons from summer to winter. When local rains depend upon the arrival of local thundersqualls, originating over high mountain ranges or table lands, each locality has its particular hour at which to expect rain. In the Tropics the annual march of the sun north and south of the equator results in a complete double change in the diurnal maximum rainfall. The annual periodicity involves the study of the differences between continental, coastal and oceanic locations. Also that between Monsoon regions and tropical regions, having but one annual variation, as compared with the equatorial which has two annual variations.

In the Painted Desert of northern Arizona, the region of the Grand Canyon, of the Colorado, heavy thunderstorms and violent wind squalls, attended with vivid flashes of lightning are of daily occurrence, under the terrific heat radiation of that barren desert locality. The distribution of the annual quantity of rain over the whole globe cannot be discussed efficiently because of the lack of adequate rainfall observations over the oceans. Over the Atlantic ocean from the equator to ten degrees north latitude, the mean annual average rainfall is one hundred and forty-five inches, while over the land areas within the same geographical limit the mean annual fall is only eighty-three inches. It has been estimated that about six per cent of the continental land surface has an average annual rainfall of over seventy-five inches; sixteen per cent has a fall of from fifty to seventy-five inches; about twenty five per cent has a fall of from twenty-five to thirty inches; over thirty per cent has from ten to twenty-five inches; while over twenty per cent has less than ten inches.

THE occurrence of excessive or high intensity rainfalls is generally associated with the passage of severe cyclonic storms or during the prevalence of highly developed monsoons in mountainous regions. Of this class of precipitation the greatest annual deposit occurs in British India and in the East Indies, where many stations record over one hundred inches a year. The most remarkable of these is found at the station of Cherrapungi at an elevation of 4,455 feet. On the southern slope of a minor range of the Himalaya Mountains, near the head of the Bay of Bengal, with an average annual rainfall of four hundred and seventy four inches, of which over four hundred fall in the five months from May to September, or during what is called the "Summer Monsoon". On June 14th, 1876 a fall of 40.8 inches was measured at this station in twenty-four hours. Over six hundred inches, or fifty feet, have been collected in certain years. The average fall for the five rainy months is nearly three inches a day. At Mahableshwar on the western slope of southern India the annual fall is two hundred and sixty one inches, of which two hundred and fifty-one fall from June to September inclusive. A short distance east of this station, on the elevated, but even plateau of Beccan, the rainfall is reduced abruptly to twenty inches a year, illustrating the peculiar features of the Rainfall Spread in this locality.

Other illustrations of Rainfall Spread are shown in the following examples: The greatest mean annual rainfall in the United States (101.87 inches) is found at Neah Bay, Washington. If Alaska is included this tremendous annual fall is augmented to 111.72 inches at Sitka. The lowest annual rainfall of three inches in the U. S. is found at Yuma, Arizona, based on a record of thirty-five years. There are two regions of excessive rainfalls in the United States, one in the vicinity of Cape Hatteras, on the Atlantic Coast, and the other on the Pacific Coast, extending northward from Eureka, California to Neah Bay, Washington. At upper Matole, California, in January, 1888, 41.63 inches fell. At Alexandria, La., in June 1886, 36.9 inches fell of which 21.4 fell in twenty-four hours on June 14th. At Washington, D. C., June 27th, 1881, 2.34 inches fell in 37 minutes. At Alta Pass, N. C., on July 15th, 1916, 22.22 inches fell in 24 hours, the heaviest ever recorded in the United States. This precipitation attended the movement northward of a West Indian hurricane. This storm moved northwestward from Porto Rico reaching the Carolina Coast on July 14th, thereafter passing slowly inland and being dissipated against the Southern Alleghanies on July 16th with unusually intense rainfall. Both the cyclonic and orographic rainfall being one of the heaviest in this storm which has ever visited the United States. At Miami, Fla. on November 30th, 1925, 14.10 inches fell in 14 hours, during the prevalence of Gulf hurricane. At Porto Bello, Panama on November 29th, 1911, 2.48 inches fell in five minutes, at 2:07 A.M. At Curtea de Arges, Roumania, 8.07 inches fell in twenty minutes on July 7th, 1889. At Galveston, Texas in October, 1913, 3.94 inches fell in fourteen min-

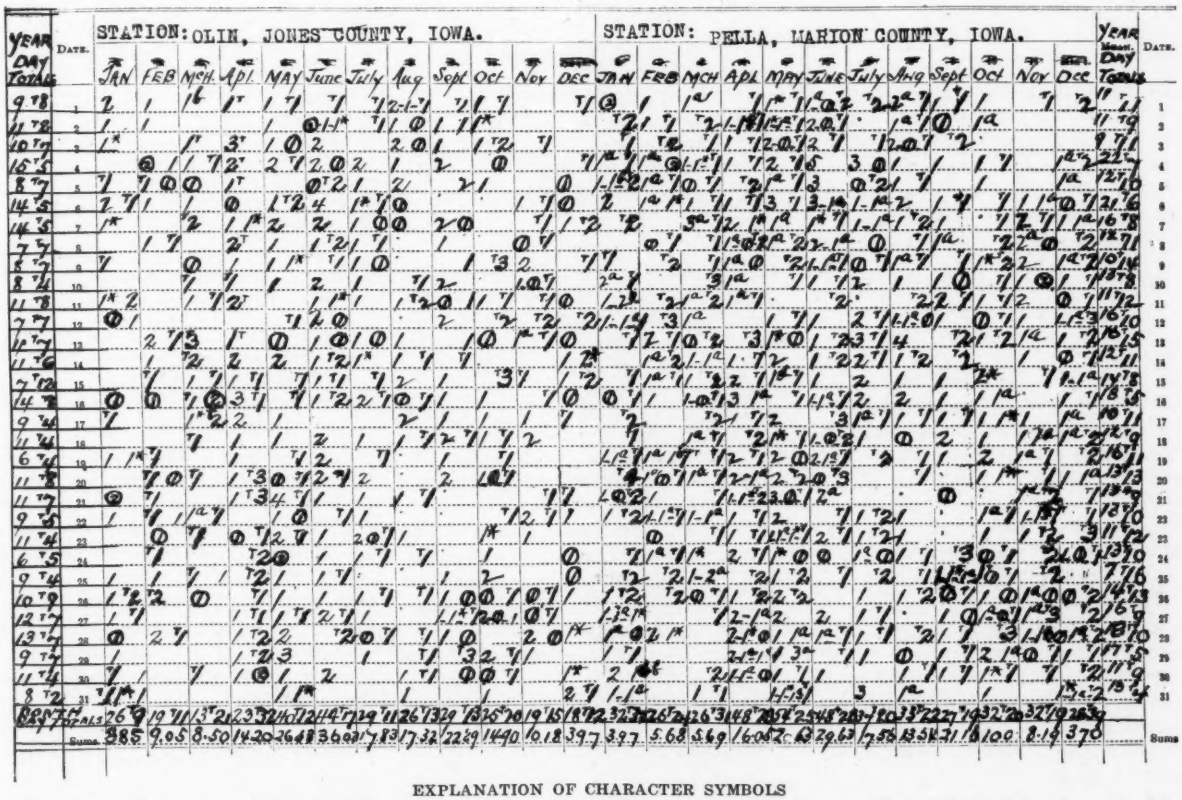
utes. At Crohamhurst, Queensland in February, 1893, 30.71 inches fell in 24 hours, At Maui, Hawaii, on April 16th, 1895, 21.14 inches fell in 24 hours. At Tanabe, Japan, in August, 1889, 35.5 inches fell in 24 hours. At Montell, Texas on June 28th, 1913, 20.60 inches fell in 18.5 hours. At Fort Clark, Texas, June 14th, 1899, 18.05 inches fell in 24 hours. At Guinea, Virginia, August 24th, 1906, 9.25 inches fell in 30 minutes. At Merrill, Wis., July 24th, 1912, 11.25 inches fell in 24 hours. At Bonaparte, Iowa, June 10th, 1905, 12.10 inches fell in 8 hours. At Palmetto, Nev., in August, 1890, 8.82 inches fell in one hour. At Campo, Calif., August, 1891, 11.05 inches fell in one hour. At Philadelphia, Pa., August 3rd, 1898, 3.82 inches fell in one hour. At Kansas City, Mo., August 23rd, 1906, 4.74 inches fell in one hour. At Keosauqua, Iowa, June 10th, 1905, 10.09 inches fell in 12 hours. At Stockport, Iowa, June 10th, 1905. 10.63 inches fell in 24 hours.

The Rainfall Spread Table of Iowa

JONES COUNTY is located in the eastern minimum area, and Marion County is located adjacent to the maximum central area, which is the maximum of the State. This table will require very careful examination to comprehend its general and detailed application to circumscribed localities in working out the problems of the rainfall hazard in such cases. The entries must be read through the application of the character symbols appearing in the notes at the foot of the table. It will be observed that the occurrences of Trace precipitation sometimes exceeds the occurrences of measured precipitation, and at Pella station in January, the totals of both Trace and measured precipitation coincided. In March and December, for this station, the total Trace occurrences were in excess. At station Olin, the Trace was in excess in April. In all other months, the measured amount was considerably in excess. The heaviest monthly precipitation (36.03 inches) at Olin, occurred in June, and the lightest, 3.97 inches occurred in December. For Pella, the heaviest monthly precipitation (29.63 inches) occurred in June and the lightest (3.70 inches) occurred in December. At Olin a tenth of an inch occurred but once in the five-year period and on March 1st. At Pella a tenth of an inch occurred six times, twice in January (5th and 30th) and once each in February (19th), April (2), May (15) and November (22). An entire chapter could be written on the discussion of this very important table, the like of which has never before been prepared or published. It affords a deep analysis of the fundamental problems of the underwriting of the Rainfall Hazard.

The Rainspread Chart of Iowa

THE geographical area of Iowa is 56,147 sq. miles and is subdivided into 99 Counties. The Spread of population is about 45 persons to the square mile. The


STATION: OLIN, JONES COUNTY, IOWA.
STATION: PELLA, MARION COUNTY, IOWA.
YEAR
DAY
DATE.
JAN FEB MCH APL MAY June July Aug Sept Oct Nov DEC
Sums
385 9.05 8.50 14.20 26.48 36.03 17.32 22.29 14.90 10.18 39.7 39.7 5.68 5.69 16.06 29.63 3.70 13.54 21.18 100 8.19 370

EXPLANATION OF CHARACTER SYMBOLS

All entries are times of occurrence, except the "sums" at the foot of the table which show the total monthly precipitation for each month of the year, for each station, for the whole five-year period.
Figures standing alone = Precipitation of 0.01 inch or more.
Figures in rings = Maximum precipitation for the month.
Figures denoted by "T" = Trace precipitation or less than 0.01 inch. Too small to measure.
1a = Precipitation of 0.02 to 0.09 inch.
1b = Precipitation of 0.10 inch.
1* = Precipitation of 0.01 inch.

chart shows areas of maximum and minimum occurrence of rainfall, not by days or amounts, but by times of occurrence, a very valuable consideration in working out the problems of the Rainfall Hazard. The contours are drawn for an interval of 5 and the rain spread is in evidence not only by the number of times rain fell, in the period of five years, embraced by the chart, but by the extension of the maximum and minimum rain areas over the State. There are four maximum areas and five minimum areas. The former cover 44 counties and the latter 55 Counties. The extreme minimum hazard for the State is 21 times in Monroe County, and the extreme maximum hazard is 54 times in Jasper County. The minimum areas range from 21 to 40 and the maximum areas from 41 to 54. The maximum areas cover part of the eastern, central and southwest portions of the State, while the minimum areas cover the remainder. A survey of the State by means of the Rainfall Spread, will furnish very valuable information on which to base the underwriting of the State Rainfall Hazards. This form of survey can be made for any degree of precipitation and demonstrates how to locate the range of hazards for any State or portion thereof. Trace rainfalls (an amount too small to measure) are not shown on this chart.

Cloud Table of Heights and Velocities

THE table of Cloud heights and velocities at various levels gives the values for each month of the year and for each one of the nine different cloud types. These types are explained in the notes at the foot of the table, so that the abbreviations used in the column headings may be translated. The cirrus cloud formations develop up to about an elevation of 16,000 meters, or 10 miles, and all the cloud forms are highest in the summer months owing to the development of strong convectional currents. The greatest cloud velocities are about 90 meters per second and occur in the Autumn and Winter. The principal maximum of cloud formation occurs in midsummer, but there are two subordinate maxima, one in February and one in November. There is greater height and thickness at these seasons. In other words, the tendency to form clouds and precipitation is at a minimum in March and from Septmber to October, inclusive, and at a maximum from April to August inclusive.

It was from a careful analytical study of the observations set forth in this table that new light was thrown upon the true structure of cyclonic and anticyclonic circulation in the atmosphere. It became evident that, above the ground, there is an enormous increase in the movement of the atmosphere, from an average of 5 meters per second, or 11.2 miles per hour, up to 40 meters per second, or 90 miles per hour, at the 10,000 meter, or 6¼ mile level. It is also disclosed that three systems of velocities, according to the height and nature of the cloud formations, exist as follows:

The lowest in the stratus-cumulus level, 1,000 to 2,000 meters elevation. The second in the strato-cumuls and the alto-cumuls levels, 3,000 to 4,000 meters elevation, and the third in the cirro-cumulus and cirro-stratus levels, 8,000 to 9,000 meters elevation. The increase in the vertical velocities takes place chiefly in two strata, viz: The stratus to the cumulus, about 1,000 meters thick, and in the strato-cumulus to the alto-cumulus, about 2,000 meters thick.

AS the atmosphere appears to have in it three distinct eastward layers of velocity, of 1,000 to 2,000 meters thick with about 1,000 meters for the transition between them, it is therefore apparent that the stratus type of clouds form at the bottom and the cumulus type at the top of each one of these currents, and these facts should be carefully considered in discussing the physics of cloud formation. While the atmosphere over HIGHS or anticyclonic areas move rapidly eastward yet the eastward drift is less than over the LOW, or cyclonic areas. The HIGHS have a small northward movement, which component is more marked in the LOWS. The HIGHS have a fed-in movement from the west and the LOWS from the south, as well as from the west, showing that the tropical warm air is conveyed towards the poles in all levels, tending to increase slightly in velocity at the higher levels. Between the HIGHS and LOWS the movements to the south in the former, east of the centers and to the north in the latter, west of the centers is greatest in the strato-cumulus region, 2,000 to 3,000 meters above the ground. This is the level which is especially active in storm formations, and shows the greatest anticyclonic actual velocity of any of the levels, with the characteristic gyration in all vectors, well-developed to at least the cirro-stratus level.

Therefore the true HIGH or anticyclonic gyration, extends from the ground upward about six miles with its strongest development in the strato-cumulus level, at the height of 2,500 meters. Likewise the true LOW, or cyclonic gyration extends from the ground upward, but with more rapid increase in vertical velocity to the strato-cumulus level, where it is most firmly developed. As to cyclonic circulation there is not much difference between the strato-cumulus and the alto-cumulus levels through a depth of 2,000 meters, except less regularity in the structure of the vectors in the higher strata. While the alto-cumulus and cirro-cumulus levels show plainly the true cyclonic gyrations, it has quite disappeared at the cirro-stratus and cirrus levels, the vectors being irregular with a mere structureless discharge from the underlying vortex into the general eastward circulation at that high elevation of 9,000 meters and beyond.

CORRECTION

IN THE

SEPTEMBER ARTICLE

ON

RAINFALL HAZARDS

The Phrase "Meridian Time" in the Caption on Page 5 Should Have Read "75th Meridian Time."

Thus we find that the stratocumulus and cumulus levels first show a complete gyration superseding the eastward drift component, and that is the stratum where the greatest locational energy exists. The mechanism of the temperature gradients, as also the humidity or moisture gradients in this strata can sustain convectional horizontal currents which are thrown into gyration like whirlpools in a rapid stream. Such streams actually exist in the lower cloud levels, while the upper air is but slightly deflected by their influence, except as they are compelled to avoid making a discontinuance system of stream lines. Almost all of the activity of cyclones and anticyclones are thrown upon the *horizontal* currents. The vertical component being chiefly the necessary result of the vortex motions.

The existence of warm and cold currents (temperature and humidity gradients) in the lower strata and their disposition or absorption in the higher strata, through the mechanism of cyclonic and anticyclonic gyrations is the basic generating force of all forms of precipitation, local storm development and inclement weather. Through this machinery of atmospheric circulation, we arrive at the causes of Rainfall Spread and the strange configurations of its areas. This Spread is one of the most important factors in the scientific rating of the Rainfall Hazards. It must be stated that this rather prolonged and technical discussion of cloud heights and velocities is necessary to elucidate the vitally important factors of Rain Spread and to convey to the critical mind the fact that the analysis of precipitation tables, of whatever extent and degree of classification, cannot alone afford practical results of dependable character in the rating of the Rainfall Hazards.

Canning the Preliminaries

Young Son (to shoe clerk waiting upon his fastidious mother) —"No use showing her the first ten pairs—she won't take 'em."

—Life.

That's Easy

He—Our engagement is off. A fortune-teller just told me that I was to marry a blonde in a month.

She—Oh, that's all right. I can be a blonde in less than a month.

Mutual Baseball

AT the banquet of the Insurance Baseball League of Chicago, October 14, the cup emblematic of the 1926 championship was presented to Kemper Insurance baseball team, representing Lumbermens and Manufacturers Insurance Agency, Lumbermens Mutual Casualty Company and National Retailers Mutual Insurance Company, of which James S. Kemper is general manager.

Kemper Insurance was also presented with the cup for the championship of Division I, having won all twelve of the games in the regular series. The team representing the Royal Insurance Company was presented with the cup for the championship of Division II, having won eleven of its twelve games. There were fourteen teams in all, seven in each division.

The league championship was decided in a post-season series of three games between Kemper Insurance and Royal. Kemper Insurance won two and the championship. The one game won by Royal was the only one lost by Kemper Insurance of its fifteen league games in 1926.

Officers Recover Stolen Autos

ALMOST $2,000,000 worth of motor vehicles reported stolen during the fiscal year ended June 30, 1926, were recaptured by officers of the Bureau of Investigation of the Department of Justice, in its operations in enforcing the motor vehicle theft act, the Department of Justice announced in a statement on September 18.

This valuation was placed by the department of 2,492 motor vehicles which were returned to their owners after having been stolen during the past fiscal year.

The full text of the department statement follows:

Motor vehicles in the number of 2,492, valued at $1,930,709, were recaptured by officers of the Bureau of Investigation, Department of Justice, in operations for enforcing the motor vehicle theft act during the fiscal year ended June 30, 1926. In these operations identification orders were issued calling for the apprehension of 51 fugitives wanted for such law violations and 26 fugitives were apprehended as a result of bureau investigations. There were 171 persons involved in these various investigations, 31 of whom were indicted and 26 convicted, receiving sentences totaling 45 years.

Kansas Code

(*Continued from Page* 22)

cial structure of all insurance organizations should be such that they can at all times carry out the terms of the contracts which they enter into with the public; second, that the contents of the policies should represent a fair contract to the policyholder which does not deprive him of the purported benefits through technical restrictions or concealed reservations and, finally, that the public generally should be protected in the sale, not only of the contract or policy of insurance, but of the stock and evidences of indebtedness of the company which may be offered to them for purchase.

"With these matters in mind the commission has uniformly raised the requirements as to the paid-up capital and reserve of stock companies and the surplus of mutual companies before permitting such companies to organize or to do business in this state. It has, secondly, provided a standard form of policy for contracts of life, health and accident, and casualty insurance. It has not suggested a standard form of contract for fire insurance for the reason that the New York standard policy, as provided by the law of the State of New York, has now been uniformly accepted by all insurance companies doing business in this state. Finally, there has been included provisions for the regulation of the sale of stock in insurance companies during the process of organization and also for the supervision by the Superintendent of Insurance of the agents in order that those agents who do not fairly represent the contents of the contracts to the insured or who otherwise take advantage of the ignorance of the average purchaser of insurance may be precluded from soliciting business within the state of Kansas.

"In view of the fact that there is now pending before the Supreme Court of Kansas the case of Aetna Insurance Company, et al, vs. William Baker, Superintendent of Insurance, which involves many questions concerning rate regulations, the commission has felt that no recommendations should be made until that decision is handed down and the present Rate Regulation Act is set out in the code without substantial change.

"There has been set out with each section a note briefly describing the changes made and the reasons for such changes. In the appendix will be found tables affording a ready-reference from the Revised Statutes of 1923 to the new code or vice versa.

The commission has reduced the insurance laws of this state by nearly one hundred sections and has tried to present a code which will be workable and useful for years to come.'-

Tornadoes

(*Continued from Page* 12)

nadoes have occurred in both of these states. Similarly it may be assumed that the relatively high tornado frequency shown for New Jersey and Massachusetts may involve an element of chance which would be counteracted by a longer period of observation. The record for Oklahoma is no doubt incomplete for the earlier years covered. For many other states the figures for tornado frequency are no doubt affected more or less by differences in the efficiency of the reporting service.

The studies here summarized appear to indicate that the four states largely enclosing the state of Missouri, namely, Iowa, Kansas, Arkansas, and Illinois, have the highest tornado frequency. Missouri itself, while comprising the center of the severest tornado area shows a somewhat lower average frequency than is shown for the four bordering states just mentioned. The new or striking thing brought out, however, is not the tornado frequency in the states just mentioned, but rather the relatively high tornado frequency found in many of the southern and eastern states, when this frequency is calculated so as to bring about comparable figures on a unit-area basis.

DURING the eight-year period 1874-1881, a total of 506 tornadoes were reported for the United States, or an average annual number of 63.25. During the nine-year period 1889-1897 a total of 424 tornadoes were reported, or an annual average of 47.1. During the eight-year period 1916-1923 a total of 754 tornadoes were reported, or an annual average of 94.25. As already stated, the total number for the 25 years covered by special studies is 1,684, giving an annual average for 25 years of 67. The apparent increase in annual tornado frequency as indicated by these figures is probably in part explained by increased completeness in the weather reports.

While the west-central states, according to the figures cited, do not have the monopoly on tornadoes that popular belief tends to assign to them, there is evidence that the tornadoes that occur outside of the Mississippi Valley are generally less destructive. This conclusion is arrived at both by consideration of the loss of life and the amount of property loss.

Since deaths and property losses from tornadoes depend not only on territorial area but quite as much on the density of population and of property values, the simple unit area plan used in arriving at comparative figures with reference to the occurrence of tornadoes, is here of little value. We shall, therefore, in touching on these phases of the subject return to simple state figures.

LIMITING ourselves to the data furnished by the latest period of special study for which the results have been published, namely, that covering 1916-1923, we find that in total loss of life from tornadoes during the eight-year period the leading states take the following rank:

Mississippi	257	fatalities
Arkansas	231	"
Alabama	180	"
Texas	152	"
Illinois	149	"
Oklahoma	144	"
Indiana	131	"
Missouri	123	"
Minnesota	99	"
Kentucky	75	"
Georgia	63	"
Kansas	61	"
Tennessee	54	"
Louisiana	42	"
Ohio	40	"
Iowa	40	"
Wisconsin	18	"
Michigan	16	"

No other state reported more than 10 fatalities and 18 states reported no death from tornadoes during the eight-year period.

It may be noted that, measured by loss of life, the center of the tornado area shifts materially southward as compared with the center determined by the actual count of tornadoes occurring. This is probably in part explained by the lighter and flimsier housing facilities of much of the population in the southern states.

The total loss of life from tornadoes in the 48 states during the eight-year period was 1,929. During the same period a total of 821 fatalities was reported from storms not tornadoes.

TURNING finally to the property loss and again limiting ourselves to the latest period of special study, we find that during the eight years 1916-1923, the property loss from tornadoes reported for 13 leading states was as follows:

Illinois	$7,536,000
Indiana	5,016,000
Minnesota	4,767,000
Iowa	4,446,000
Alabama	3,797,000
Mississippi	3,698,000
Kansas	3,662,000
Missouri	3,507,000
Texas	3,439,000
Ohio	3,187,000
Michigan	3,082,000
Oklahoma	2,632,000
Georgia	1,500,000

None of the other states reached a million and a half, and for eight states no property loss from tornadoes was reported.

Measured by the amount of property damage from tornadoes, the center of the area of destruction, it will be noted, shifts somewhat to the north of the center as determined by mere count of tornadoes occurring, instead of shifting southward as is found to be the case when loss of life is considered. This is no doubt in part explained by the larger average property values per square mile of area in the northern half of the Mississippi Valley as compared with the southern half.

The total property loss from tornadoes in the 48 states during the eight-year period is reported as $62,211,000, while the total property loss from winds not classed as tornadoes is reported as $77,110,000. The loss from storms other than tornadoes was particularly heavy in the states of Texas, Louisiana, Alabama, and Florida, these four states reported a total of $47,508,000, or nearly two-thirds of the total for the United States.

THE years, 1896, 1917, and 1920, according to published figures, stand out as particularly bad tornado years. For each of these years the reported tornado damage was about $15,000,000. According to hitherto unpublished data on hand at the Weather Bureau, however, 1924 was the worst year on record based on property loss. During that year 130 tornadoes were reported and the estimated property damage exceeded $26,000,000.

The year 1925, the data for which are not yet fully compiled, was almost as bad as 1924 in property loss from tornadoes and even worse as measured by loss

(*Concluded on Next Page, 2nd Col.*)

Chrysler Plan Decision

THE much-discussed Chrysler Plan, whereby all Chrysler automobiles are insured for one year from the date of sale to the retailer, through a contract made in Michigan by the Chrysler Company and the Palmetto Insurance Company, was held by the Supreme Court of the United States to cause contracts for insurance to be made within the state of retail sale, and such insurance is subject to tax by the states.

Mr. Justice Holmes in delivering the opinion said, in part:

"It is not desirable that the Courts of the United States should go beyond strict necessity to instruct the officials of a State as to the meaning of a State law. Unless the case is very clear their action should be left to control of the State Courts. There are plausible reasons in this case for following the local interpretation and we think that the court below was right in accepting the commissioner's view. Other arguments thrown in as make-weights do not need to be discussed. The fact that the cost of the insurance was taken up into the price of a machine otherwise lawfully sold does not prevent the insurance being reached."

Privately Owned Cars Barred From Fleet Insurance

THE question of Fleet Insurance is engaging a large amount of attention. Below are two rulings concerning this live subject. Honorable A. S. Caldwell, Insurance Commissioner of Tennessee, says under date of October 1, 1926:

"It has been brought to the attention of this Department that in the past certain insurers have included automobiles privately owned by employees of organizations or persons, at the fleet or group rate and in the fleet or group policies issued to the employers.

"This practice of including privately owned automobiles of employees in the fleet policies of their employers and at fleet rates is a discrimination against other owners of private cars, regardless of whether or not the employee's cars are operated part of the time in the interest of the employer.

"This ruling applies to all forms of automobile insurance.

"The inclusion of a privately owned car in a fleet or group policy will be construed as prima facie evidence of discrimination.

"Any insurer or agent guilty of such discrimination will incur the full penalty provided by law."

Honorable Ben C. Hyde, Insurance Commissioner of Missouri, says on the same subject, also under date of October 1st:

"The persistent practice of putting automobiles which are, or which might be, properly classified as private passenger cars into a group for the purpose of writing them at fleet rates and the unbridled effort of some of the companies to obtain this business have resulted in rank discrimination and have greatly unsettled this particular class of insurance business.

"The proper make-up of the rate has often been ignored, the rule in reference to single ownership has been disregarded and the coverage has been extended to automobiles owned by individuals, employees and officers of a corporation.

"Such practices are not only unfair but are unjust and unsound. It is a practice which should not be indulged in or permitted either by the companies or by the agents. I therefore hold that the present practice of writing automobile fleets at fleet rates, where there is included in such fleet any vehicle of the pleasure car type, whether used for business purposes or not, to be illogical, unsound and a discrimination which in effect amounts to a rebate, and illegal under the laws of the State of Missouri. I also hold that such practices are in violation of the fire insurance rating law of this state.

"From and after this date it shall be illegal for any company to write automobile fleet business other than as above set forth."

Tornadoes

(*Continued from Page* 28)

of life. In connection with property losses for recent years, the change in prices or values of property should, of course, be kept in mind. The year 1926 promises to show a decided decline in tornado losses as compared with the years immediately preceding it. What the current year may lack in spectacular tornado history has, however, already been offset by its records as a hurricane year.

Auto Deaths on Increase

AN announcement recently made by the Department of Commerce gives a compilation of vital statistics showing that automobile fatalities in 78 large cities of the United States in the four-week period ended September 11 totaled 560, or a daily average of 17.9. This compares with 521 for the corresponding four weeks of 1925.

The full text of the bulletin follows:

The Department of Commerce announces that reports of automobile fatalities for the four-week period ending September 11 have been received from 78 large cities in the United States. The total number of such fatalities in these cities was 560 as contrasted with 521 for the corresponding four weeks of 1925, and the daily averages for the two four-week periods were 17.9 and 16.6 respectively. The numbers in 18 periods of four weeks were as follows:

For weeks ending:	
September 11, 1926	560
August 14, 1926	497
July 17, 1926	484
June 19, 1926	549
May 22, 1926	487
April 24, 1926	424
March 27, 1926	350
February 27, 1926	378
January 30, 1926	434
January 2, 1926	558
December 5, 1925	632
November 7, 1925	616
October 10, 1925	528
September 12, 1925	531
August 15, 1925	469
July 18, 1925	495
June 20, 1925	492
May 23, 1925	424

Five cities showed no automobile fatalities for the last four weeks, while nine cities showed no fatalities for the corresponding period of 1925.

For 55 cities in the last four-week period, automobiles deaths where both the death and the accident occurred within city limits totaled 342, as against a total of 408 for all deaths from automobile accidents regardless of whether the accidents occurred within or outside the city limits.

Automobile fatalities reported during the four weeks ending September 11, 1926: (Figures show deaths in each city, regardless of place of accident, and regardless of residence. The figures for 1925 and 1926 are provisional).

Itinerary to the Fifty-Seventh Session of the National Convention of Insurance Commissioners

To Be Held at the Biltmore Hotel, Los Angeles, California, November 15th to 19th, 1926

OWING to the fact that some of the Commissioners desired to take the northern route, by way of Seattle and Portland, while others preferred a more direct route, it was thought best to organize two parties, one leaving Chicago by the Northern Pacific at 10:35 A.M., Thursday, November 4th, and the other leaving Chicago, Saturday morning, November 6th, at 10:00 o'clock via the Rock Island lines, both parties arriving at San Francisco Wednesday morning, November 10th. From then on the two parties will travel together.

Route No. 1 via Seattle and Portland

Thur. Nov. 4th—Lv. Chicago, Ill., C.B.&Q.-N.P. ..... 10:35 A.M.
Sun. Nov. 7th—Ar. Seattle, Wash., Nor. Pac..... 7:00 A.M.
Sun. Nov. 7th—Lv. Seattle, Wash., Nor. Pac..... 11:45 P.M.

Sleeper from Seattle to Portland open for occupancy at 9:30 P.M.

Mon. Nov. 8th—Ar. Portland, Ore., Nor. Pac..... 6:45 A.M.
Mon. Nov. 8th—Lv. Portland, Ore., Sou. Pac..... 9:00 P.M.
Wed. Nov. 10th—Ar. San Francisco, Cal., Sou. Pac... 7:50 A.M.

Pullman rates from Chicago, Ill., to San Francisco, Calif., via this Itinerary.

Lower Berth	$ 35.63
Upper Berth	28.50
Drawing Room	127.50

Route No. 2 Direct to San Francisco

Sat. Nov. 6th—Lv. Chicago, Ill., Rock Island Lines..... 10:00 A.M.
Sun. Nov. 7th—Ar. Denver, Colo., Rock Island Lines.... 3:00 P.M.
Sun. Nov. 7th—Lv. Denver, Colo., D. & R. G. W..... 4:00 P.M.
Mon. Nov. 8th—Ar. Ogden, Utah, D. & R. G. W..... 10:30 P.M.
Tues. Nov. 9th—Lv. Ogden, Utah, Sou. Pac..... 6:00 A.M.
Wed. Nov. 10th—Ar. San Francisco, Calif., Sou. Pac. 8:30 A.M.

Pullman rates from Chicago, Ill., to San Francisco, Calif., via this Itinerary.

Lower Berth	$23.63
Upper Berth	18.90
Compartment	66.75
Drawing Room	84.00

From San Francisco, to Los Angeles via Yosemite Park

Thur. Nov. 11th—Lv. San Francisco, Calif., Sou. Pac. 11.40 P.M.
Fri. Nov. 12th—Ar. Merced, Calif., Sou. Pac..... 4:55 A.M.
Fri. Nov. 12th—Lv. Merced, Calif., Y.V.R.R. ..... 8:00 A.M.
Fri. Nov. 12th—Ar. Yosemite Valley, Calif., Y.T.Sys..... 1:15 P.M.
Sat. Nov. 13th—Lv. Yosemite Valley, Calif., Y.T.Sys.....10:45 A.M.
Sat. Nov. 13th—Ar. Merced, Calif., Y.V.R.R..... 4:35 P.M.
Sat. Nov. 13th—Lv. Merced, Calif., Sou. Pac..... 4:45 P.M.
Sun. Nov. 14th—Ar. Los Angeles, Calif.,Sou. Pac..... 7:40 A.M.

Pullman rates from San Francisco to Los Angeles via Yosemite.

Lower Berth	$ 8.25
Upper Berth	6.60
Drawing Room	30.00
Compartment	26.25

The return trip will be via the Atchison, Topeka and Santa Fe Railway and will include a day at the Grand Canyon and a night and a day at Santa Fe, making one of the Indian detours from that point, which will be particularly interesting to the members of the Pamunkey tribe.

Sat. Nov. 20th—Lv. Los Angeles, Calif, Santa Fe....12:01 P.M.
Sun. Nov. 21st—Ar. Grand Canyon, Santa Fe..... 8:20 A.M.
Sun. Nov. 21st—Lv. Grand Canyon, Santa Fe..... 7:35 P.M.
Mon. Nov. 22nd—Ar. Santa Fe, N. M., Santa Fe..... 5:45 P.M.
Tues. Nov. 23rd—Lv. Santa Fe, Santa Fe..... 6:55 P.M.
Thur. Nov. 25th—Ar. Chicago, Santa Fe.....10:00 A.M.

Pullman fares from Los Angeles to Chicago.

Lower Berth	$ 31.75
Upper Berth	25.40
Drawing Room	111.50
Compartment	89.50

Railroad Fare

Commissioner Detrick informs me that "The rate for the round trip will be one and a half times the regular one way rate, and the sale dates will be November 3, 4 and 5. Those starting east of Chicago have the privilege of only one route to and from Chicago. From Chicago to the coast they have the privilege of two different routes, one out and the other back."

Arrangements have been made for entertainment at Seattle, Portland, San Francisco and Los Angeles.

It is important that you make up your mind at once that you are going and let me know which route you desire to take, so that proper arrangements can be made for Pullman service.

Our headquarters in San Francisco will be the Palace Hotel and in Los Angeles the Biltmore. Mr. H. J. Brown, of the Pacific Mutual Life, has kindly consented to look after your reservations at the Biltmore or attend to any other matters for you in advance of your arrival.

Our rendezvous in Chicago will be the Congress Hotel.

Further information will be furnished upon request.

JOSEPH BUTTON,
Secretary

Richmond, Va.

Organizations of Accountants

(*Continued from Page* 15)

increasing number of problems that were placed before it by other company representatives together with the growing demand for uniformity, a natural growth resulted, and today its member companies are domiciled in many of the states from Maine to Texas. Its efforts in the past year have been toward uniformity of accounting practices, the reduction in taxes and expenses, and the exchange of ideas on accounting procedure. The existence of an Accountants' Association must ultimately be vindicated by the service it renders to Mutual Insurance.

Perhaps the best definition of the so-called Association of Mutual Insurance Accountants can be given as—a body of Mutual accountants who gather at intervals to discuss their common problems. Incidentally, the problems that might properly be placed before such an organization are too innumerable to discuss in detail.

The Association of Mutual Insurance Accountants was intended to serve the following major purposes:

1. To provide ways and means for accountants to discuss in conference subjects of common interest.

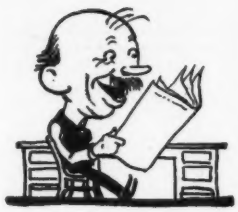
2. To interchange ideas and suggest methods of meeting problems as they arise.

3. To serve when possible associations organized in the interest of Mutual Insurance.

4. To encourage consistency in the preparation of tax data and local board assessment returns and all statements for public purposes.

5. To determine and outline correct practices and promote economy in methods of Mutual Insurance Companies.

If there are similar organizations anywhere in the United States, the members of the Association of Mutual Insurance Accountants would be happy to cooperate with them.



Bits of Wit

"LIFE WITHOUT LAUGHING IS A DREARY BLANK"—*Thackeray*

Where the Nickels Go

Scene (Sunday morning in a drug store)—"Can you give me change for a dime, please?"

Druggist—"Certainly, and I hope you enjoy the sermon."

—Christian Advocate.

Obstacles to Ambition

Gruff Father (to Son)—"Why don't you get out and find a job? When I was your age I was working for $3 a week in a store, and at the end of five years I owned the store."

Son—You can't do that nowadays. They have cash registers."

—Boston Globe.

One of the "Begats," Perhaps

"Who was Shylock, Aunt Ethel?"

"My dear! And you go to Sunday School and don't know that!"

—Life.

Putting on Airs

Angry Customer in Restaurant—"Hey, I've found a tack in this doughnut!"

Waiter—"Why, the ambitious little thing! It must think it's a tire!"

—Open Road.

The More the Merrier

A very High Church missionary—a good and devoted soul—was sent out to the Adirondacks, where most of the people had grown up Baptists. An old man of that persuasion died and his family wanted him buried from the church. The missionary, uncertain whether he might use the church for an unconfirmed sectarian, telegraphed to the bishop, asking what he should do. Back came the cordial answer: "Bury all Baptists possible."

—Christian Register.

Fleeting Joy

"That new cook of ours is a jewel—wasn't she?"

—Life.

Presented at Court

"I have a new cook coming on Monday."

"Oh, my dear, how exciting! What are you going to wear?"

—Punch.

Knew the Price

"Is this a free translation?" asked a customer in a bookshop.

"No, sir," replied the clerk; "it will cost you $2."

—Christian Evangelist.

I sent my boy to college,
With a pat upon his back.
I spent ten thousand dollars,
And got a quarterback.

—Awgwan.

Innocent Bystander

The Boy Friend—"Say, who's the dumb-looking guy that drives your car around, and works in the garden. I notice he always gives me a nasty look when I come in."

The Girl Friend—"Oh, don't mind him. That's just father.

—The Pointer.

Words, Idle Words

A Chicago newspaper points out that the Government prints and distributes the speeches made by Congressmen without the slightest profit. It might also be added they are read the same way.

—Judge.

© Life Publishing Co.

Burglar: Here, old man, have a nip o' this; it'll quiet yer nerves.

Poultry Item

First Guest (at country road-house)—"Charming place this is—seen the old wing?"

Second Guest—"Oh, yes, had it for lunch."

—The Passing Show (London).

Busy Magnate (testily)—Don't you realize that my time is valuable? State what you want. Be short.

Spendthrift Son (rising to the occasion)—I do. I will. I am.

—The Pathfinder.

"Why do you rise so early in the morning?"

"I have to get down town early in order to find a parking place for my car."

"But do you not then have a good deal of time hanging on your hands?"

"Oh, then I take the street car home and have breakfast."

—Philadelphia Inquirer.

Compiling a Directory

"But, lady," a marriage-license clerk explained to a movie-actress applicant, "the law compels me to record all previous marriages before I issue a license."

"Great guns!" exclaimed her prospective husband. "And I've got a taxi waiting!"

—Saturday Evening Post.

Green.—I thought you fixed this tire.

White.—I did. The inner tube had a hole, so I took it out. It ought to be all right now.

—Allston Recorder.

The Thirst of Vengeance

"Willie, what is your greatest ambition?"

"To wash mother's ears.

—Successful Farming.

A Weak Brother

"Look at that pall-bearer. His knees are giving way."

"Yes, he never could hold his bier."

—Voo Doo.

What Is Insurance?

[Reprinted to Correct an Omission]

A group of persons, each of whom realizes that he is subject to the possibility of some loss, the time and amount of which are matters of uncertainty, agree to create, through justly proportioned contributions, a common fund, from which, in the event of such loss happening to any of them, compensation may be made to the loser and the burden thereof distributed over the entire group—this is Insurance. It involves two main factors which are distinctive of civilized man, his social progress and security—Foresight and Cooperation. By the development of the former, through education, applied science and social organization, man has diminished the realm of chance and enlarged that of calculation. By the exercise of the latter he has become increasingly efficient in the preservation of his life and possessions. In no field of effort has he demonstrated to better advantage the practical value of Foresight and Cooperation than in that of Insurance.

INSURANCE COST

SAVING IN COST

Associated Mutuals

Grain Dealers Mutual Fire Insurance Company

Automobile Mutual Fire Insurance Company

Automobile Mutual Liability Insurance Company

Beacon Mutual Fire Insurance Company

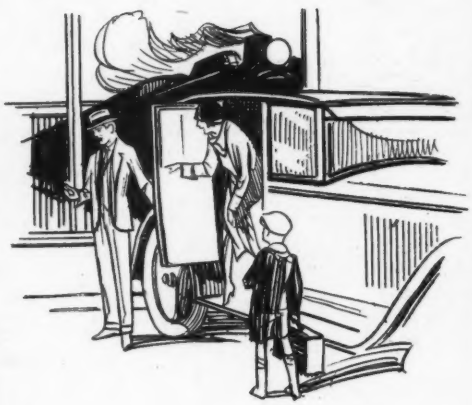
An organization of Massachusetts Mutual Insurance Companies associated under one management and devoted to reducing insurance costs. Dividends 20% and 25%.

Associated Mutuals

211 Congress St.

Boston, Mass.

A. Shirley Ladd, Secretary



Mr. Good Driver Makes Better Time

Whenever haste is important Mr. Good Driver reasons: Being there *on time* is never more important than *being there.*

He drives more carefully, if possible, than ever, and usually arrives in ample time—BUT HE ALWAYS ARRIVES.

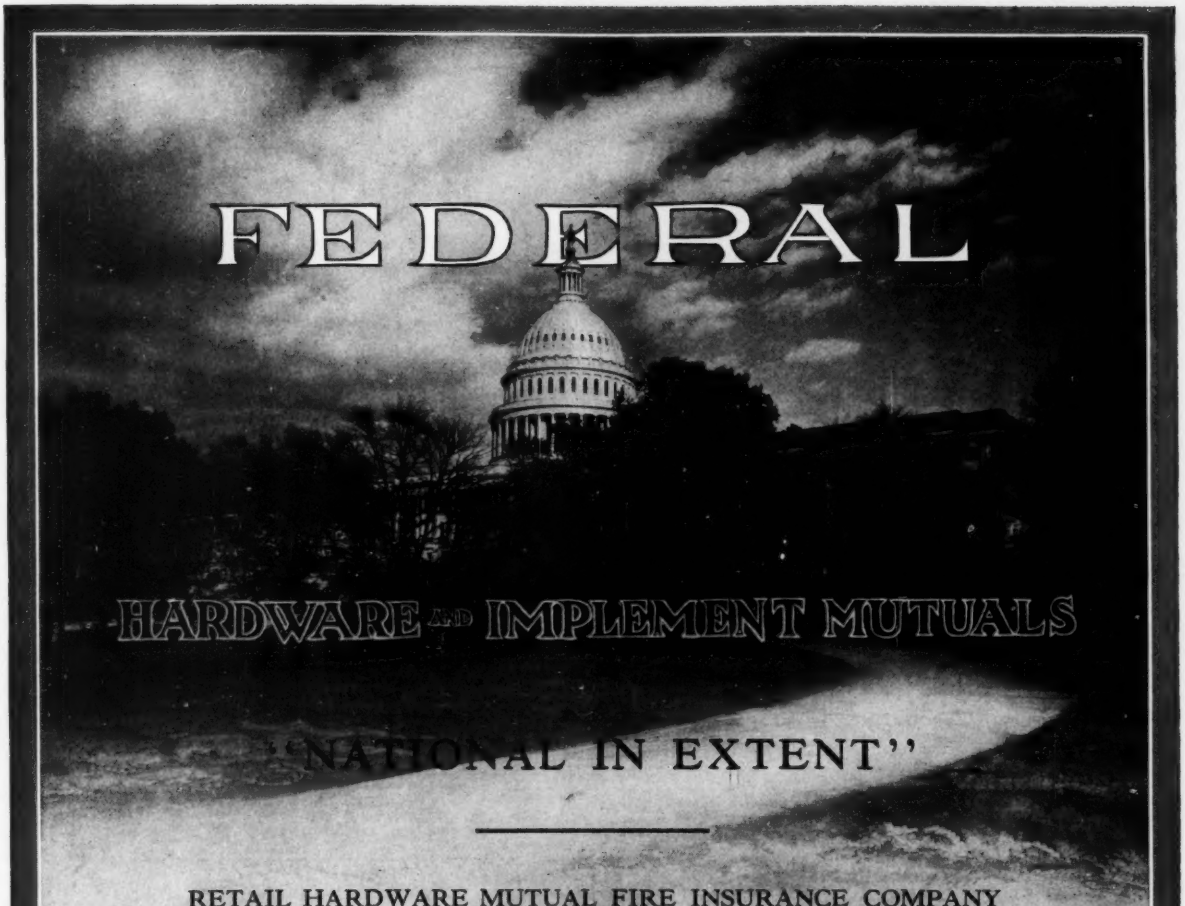
Sometimes his friends, bound for the same destination, accuse him of speeding, but he knows that it isn't necessary. He drives deliberately, and painstakingly. He avoids many delays, accidents, and wrong turns—all of which saves him considerable time.

Mr. Good Driver makes better time because he is, actually, a competent driver and he moves calmly on his way, while rushing, scurrying, careless drivers are losing time with false starts, accidents, tongue lashings by traffic officers, and other well-known delays which are induced by the wrong kind of haste.

Careful drivers usually make better time than others, and they don't depend on the caprices of Lady Luck to pull them through. Their brains accomplish what the careless driver's high-speed motor fails to accomplish.

HARDWARE MUTUAL CASUALTY COMPANY

Stevens Point, Wisconsin



RETAIL HARDWARE MUTUAL FIRE INSURANCE COMPANY
Minneapolis, Minn.

MINNESOTA IMPLEMENT MUTUAL FIRE INSURANCE COMPANY
Owatonna, Minn.

HARDWARE DEALERS MUTUAL FIRE INSURANCE COMPANY
Stevens Point, Wis.

BRANCHES:

Newark, N. J. Atlanta, Ga. San Francisco, Cal. Dallas, Tex.
Winnipeg, Man.

Combined Assets . $7,373,350.25
Combined Liabilities 4,949,878.08
Combined Surplus . 2,423,472.17

Dividends to Policy-Holders Since Organization . $16,473,629.97

THE ACME OF PROTECTION

Prevention of Loss

THIS company is organized to serve the best interests of its policyholders as they concern insurance. The most valuable insurance service is that which prevents the occasion against which you are insured. Preventive measures,—a forceful, steady program of them—have always been an important part of our service to policyholders.

Lumbermens Mutual Casualty Company

JAMES S. KEMPER, President
Pantheon Building, Chicago, U. S. A.

AUTOMOBILE BURGLARY COMPENSATION
PLATE GLASS PUBLIC LIABILITY

Claim Service From Coast to Coast